

EIGHTH GRADE SOCIAL STUDIES TEACHERS' PERCEPTIONS
OF THE IMPACT OF TECHNOLOGY ON STUDENTS'
LEARNING IN WORLD HISTORY

by

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ABSTRACT

There are many perceptions of what should be taught in the social studies classroom. With the expansive amount of information that must be transferred to students, the job of the social studies teacher is becoming more challenging. To assist with this issue, there are numerous instructional strategies that can be employed such as anticipation guides and concept maps. These items can help keep both students and teachers on task with the required material. There are also technological instructional strategies that can be used such as *WebQuests* and virtual tours. These activities may increase students' ability to become more active in the learning process and teach them how to construct their own knowledge. In the middle school, there are cited issues that cause teaching and learning not to occur as intended by the teacher (Vogler & Virtue, 2007). High stakes testing is one of those areas.

In the elementary and middle grades, the only subjects that received attention were ones being tested, which led to a reduction and dismissal of social studies. Also in the middle grades, teachers became overwhelmed with the amount of information they were required to transmit to their students, especially when social studies was tested. This caused social studies teachers to remain at the "just the facts" level of transmitting information in order to have ample enough time to cover all of the content. A more specific challenge is faced by eighth grade world history teachers. Eighth grade has been cited as a pivotal period in the life of the student, for it has the potential to determine how well they will do in high school, college, and their career (ACT, n. d.). Eighth grade world history teachers have much to cover with little time to spend on each topic. This causes both teachers and students to become overwhelmed and discouraged. This

research study was designed to examine the perceptions of eighth grade social studies teachers on how they felt technology impacted their students' learning in world history. It was conducted in West Alabama with five eighth grade world history teachers: Darlene, Daniel, Elijah, Trevor, and Caleb (pseudonyms). The teachers participated in three online focus group sessions and one face-to-face follow-up interview. After analyzing the results, four major themes emerged: Role of the eighth grade social studies teacher, meaningful learning, hands-on learning, and barriers to technology integration.

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CHAPTER 1

INTRODUCTION

Social studies teachers have a challenging job due to the expansive amount of material they are required to convey to students. Teachers need different learning strategies to convey world history material to students. Multiple learning strategies can enhance the comprehension of students and lead to increased motivation (Vogler & Virtue, 2007). The advent of technology instructional strategies, such as digitized primary source documents, wikis, online discussion boards, *WebQuests*, and virtual tours, have minimized the challenge faced by these teachers. These instructional strategies assist students in becoming more active in the learning process and teach them how to construct their own knowledge (Tanner, 2009). Technology instructional strategies also could lead students to recognize the relevance of world history material by exploring content more deeply and actively. This active engagement has increased students' understanding and retention of information. With interests piqued, students become aware of connections between world history content and modern-day events and realize that learning world history is significant for their personal and academic growth. World history is no longer a parade of disconnected facts and dates; rather world history becomes connected to students' personal lives and experiences. Although numerous technology instructional strategies and innovative technology tools are being developed for use in middle school, teachers' ability to use these instructional strategies effectively has been cited as problematic (Vogler & Virtue, 2007). An increase in middle school social studies teachers' abilities to facilitate learning through multiple instructional strategies could prove beneficial given that social studies content in middle

school has been reduced and, in many cases, dismissed. Because social studies is not a tested subject in middle school, it lacks adequate instructional resources or funding. More time is spent preparing students for high-stakes testing in math and reading, which leaves social studies as a disappearing content area. Although middle school social studies teachers faced the challenge of diminished importance of social studies content, they also confronted the difficulty of conveying a vast array of material to their students. This pressure produces teaching that remains at the “just the facts” level in order to adequately cover the content. Teachers began relying on textbooks as the main resource and teacher-centered instruction as the primary instructional method (Tanner, 2009).

Social studies teachers perceived that social studies would be deemed relevant if it were tested. Researchers and teachers considered the following question: “What place does social studies hold in a high-stakes testing environment?” (Vogler & Virtue, 2007). Kenneth Vogler, an eighth grade social studies teacher, was informed that less time would be devoted to social studies in order to allow more preparation for Mathematics and English. Vogler insisted that curricular changes were designed to increase test scores rather than increase students’ skills and abilities. He suggested that social studies relevance exhibits a need to extend rather than reduce social instruction because it was instrumental to students’ development into productive citizens (Vogler, 2003).

Communication of necessary social studies content has presented a challenge to middle school social studies teachers who struggle with logically sequencing content (Guidry & Carson, 2010). Teachers should be knowledgeable of the logical progression of social studies and of how young adolescents develop psychologically, mentally, and emotionally. World history teachers face similar challenges of sequencing content and showing relevance. World history is so vast

that students oftentimes have more difficulty comprehending the material and recognizing relevance. Acknowledging this challenge provides teachers with insight of instructional resources that will assist students (Alabama Department of Education, 2010). The developmental state of middle school students weighs heavily on the decision of the appropriate learning strategy. While teachers' determination of what material to teach hinges on the standards and objectives in the course of study, this does not provide guidelines of the logical order to teach the content. Pedagogically, teachers should decide how material logically relates across the curriculum and determine what instructional strategies would be most appropriate to convey the material to their students. This comprehensive approach to teaching enhances the students' ability to better comprehend material, recognize its relevance, and increase their ability to employ higher-order thinking skills (Guidry & Carson, 2010).

Technology instructional strategies have been cited as approaches that present social studies in more meaningful ways and positively impact students' learning through active and purposeful involvement (Rose & Fernlund, 1997). Rose and Fernlund (1997) described meaningful learning in social studies this way:

Social studies is meaningful when students learn networks of knowledge, skills, and values that are useful in and out of school. . . . Meaningful learning requires the study of a few significant ideas or topics in depth as opposed to surveying numerous topics superficially, and a useful technology product capitalizes on technology's potential to provide a rich and deep information environment. (p. 165)

This definition is significant for eighth grade world history teachers. They should ensure that skills taught to students involve heightened levels of critical thinking, which are advantageous for deeper understanding of content and enhanced ability to apply social studies concepts within their personal lives. Teachers expressed the difficulty of covering, in detail, world history content. Meaningful learning extracts important and relevant issues and delves deeply into their

meaning, as opposed to superficially glazing over a wide array of content. Technology integration is beneficial to accomplish this feat because it provides students opportunities to obtain deeper and richer world history information. Material not discussed in class can be discovered by students at a later time. Students can learn how to determine information that is relevant and material that is insignificant and distracting. Teachers should confirm that technology being used during instruction enhances students' academic achievement and does not detract from it. Several guiding questions should be posed regarding technology integration and its relationship with meaningful learning: "Does the technology make social studies meaningful?"; "Does the technology promote learning across the curriculum?"; "Does the technology help students grapple with ethical issues?"; "Does the technology promote social studies instruction that is challenging for students?"; and "Does the technology actively engage students in learning social studies?" (Rose & Fernlund, 1997). Effectively integrating technology into the classroom involves teachers proactively deciding the advantage of using technology instructional tools in the classroom. Teachers should determine whether the technology increases meaningful learning and enhances the students' ability to comprehend the material. They should also choose an appropriate learning strategy that aligns with the developmental stage of the students. Technology tools should supplement and complement instructional resources and increase the probability that students can gain a deeper understanding of content.

Occasionally in social studies, content is taught for the purpose of students' rote memorization rather than the enhancement of higher-order thinking skills. This distinction between instructional methods prevents students from progress beyond basic content knowledge to application of social studies concepts. Teachers should encourage students to go beyond memorization of social studies material to analyzing, examining, evaluating, and synthesizing the

material in-depth. Instructional learning strategies that provide students with opportunities to understand, apply, analyze, critique, and evaluate social studies material potentially increase students' ability to retain content longer and recognize social studies' relevance to their lives (Mayer, 2002).

Students' construction of knowledge is another method for meaningful learning in social studies. Traditionally in social studies, teachers disseminate information to students in a manner that encourages memorization for recall to perform well on tests versus synthesis and application for life-long learning. Teachers tend to rely on teacher-centered instruction to convey material, and students frequently struggle with content knowledge retention. Technology integration could potentially remedy this difficulty. Wikis, a Web 2.0 technology tool, provides students with opportunities to cooperate and collaborate with their peers. This online discussion board permits students to communicate their thoughts and enhance their writing skills. Privacy can be protected by students' request for access to view and edit the discussion board, and network settings can be modified to private to secure students' identities and sensitive information. Wikis shift the focus from teacher- to student-centered instruction because students are constructing their own knowledge and communicating that knowledge with fellow classmates. Students tend to retain content knowledge longer, increase in motivation, and gain a deeper understanding and appreciation for the content. Through active student collaboration, wikis enhanced students' ability to realize social studies' relevance to their lives and connection to their previous experiences (Heafner & Friedman, 2008). Students should be adequately trained how to distinguish between credible information and irrelevant and inaccurate material. These analytical skills assist students in successfully constructing social studies knowledge, as recommended through the use of constructivist learning strategies.

Constructivist learning strategies are relevant practices in social studies because they equip students with the ability to gain deeper understanding of social studies' relevance and connection to their lives. Students should be encouraged to incorporate their previous knowledge and experiences with new content knowledge. Synthesis of these connections and application of new concepts could possibly lead to higher levels of comprehension and competency (Jadallah, 2000). Technological implications regarding meaningful learning provide opportunities for students' active engagement and increased motivation. Students take ownership of their learning when they are actively engaged with content and increase in their ability to involve metacognition. This deeper connection possibly increases students' academic achievement, perceptions of social studies, and enhancement of intrinsic motivation. Students appreciate academic development and welcome positive reinforcement of their academic achievement. Technology integration is multifaceted and provides more opportunities for students' academic growth.

Technology tools on the Internet are unlimited, which illustrate that teachers should be proactive in selecting appropriate websites and instructional learning strategies. Created by Bernie Dodge in 1995, *WebQuests* were designed to condense vast amounts of information into more reasonable portions. Through this condensation, students can eliminate distracting information and delve deeper into relevant content. Student construction of knowledge after completion of *WebQuests* increases students' higher-order thinking skills by learning how to analyze, synthesize, and evaluate material from multiple sources (Polly & Ausband, 2009). Students receive personal experience of distinguishing between fact and opinion, determination of sources' credibility, and evaluating the level of bias and its impact on the sources' reliability.

Although Internet technology tools have become more innovative, teachers also should be aware of methods to repurpose frequently used technology tools.

One example is *PowerPoint*. *PowerPoint*'s full potential is not usually invoked in social studies instruction. *PowerPoint*'s capabilities have been minimized to displaying notes to enhance lectures, but there are meaningful approaches using *PowerPoint* to facilitate active engagement in social studies instruction. Social studies teachers could embed video clips, images, and music to enhance content and increase students' understanding and interest. Teachers' time and effort are necessary to develop a presentation of this magnitude but the expended energy can feasibly benefit students' ability to learn and comprehend social studies material. Social studies teachers attempt to incorporate innovative ways of assessing students' content knowledge and *PowerPoint* could be used as an assessment instrument. Development and implementation of Jeopardy *PowerPoint* review games provides an alternative method of assessing students' retention of material in a more interactive and collaborative manner (Hofer, Ponton, & Swan, 2006). This study examined perceptions of eighth grade world history teachers in West Alabama, so it is imperative to evaluate technology standards for Alabama students, teachers, and administrators. This knowledge will put teachers' perspectives on technology's impact on students' learning into context.

Technology Integration in Alabama Schools

Officials of Alabama's State Department of Education developed Indicators for Measuring Progress in Advancing Classroom Technology (IMPACT), in order to detail technology standards and objectives for students, teachers, and administrators. Four goals were established through IMPACT: to ensure students, teachers, and administrators use technology to

master content standards; recognize the educational benefit of technology integration; be provided with a wide array of opportunities to use technology; and have adequate access to technology in order to master local, state, and national standards (Alabama State Department of Education, 2006). Alabama State Department of Education officials realized the “IMPACT” of technology integration and its capability to increase students’ academic achievement. However, this impact should be effectively communicated to students, teachers, and administrators to increase the probability of effective and appropriate technology integration in social studies classrooms. Technology standards are vital for teachers’ effective technology integration, and technology standards also are imperative for pre-service teachers for sufficient development, training, and relevant experience.

Technology Standards for Teacher Education

The National Council for Accreditation of Teacher Education (NCATE), and similar accreditation agencies, has established technology standards essential for proper preparation in teacher education programs. Standards include the following: pre-service teachers’ proficiency in methods, concepts, and technology instructional strategies and experience with instructional technology resources used for teaching, assessing students, and professional growth (NCATE, 1997). Early emphasis on acquiring multiple skills with technology integration implies the prevalence of utilizing technology to enhance students’ academic development. Teacher education technology standards are a significant component of the program and provide pre-service teachers with necessary skills to be successful during in-service teaching.

Purpose of the Study

A review of research literature on the effectiveness of technology integration in social studies concluded that although there are several approaches to technology integration in instruction, researchers found that technology resources primarily focused on the Internet. Rather than incorporating instructional technology tools for the enhancement of students' understanding of content, technology was used as a digitized version of transmitting material. However, technology integration should not be incorporated arbitrarily. Technology integration should be intentional and meaningful for teachers and students. There is an impending need for research on the effectiveness of technology integration in social studies due to the lack of precedence in this area (Whitworth & Berson, 2003).

Students usually enter the social studies classroom with little to no relevant prior knowledge of the content (Stanley, 2001). This same trend is exhibited in the world history classroom. Students are introduced to world religions, cultures, and events they are not familiar with. This presents a challenging undertaking for teachers to transmit material in a manner that does not overwhelm the eighth grade students and conveys information in a clear and understandable way. Equipping teachers with instructional strategies to accomplish this task is beneficial to students' academic development and enhancement of higher-order thinking skills. Research addressing this need for appropriate instructional and learning strategies is scarce. This is problematic because lack of knowledge of multiple instructional and learning strategies decreases teachers' effectiveness of instructing their students. Middle school has an emphasis on high-stakes testing because it influences funding for instructional and professional resources. Administrators recognize the importance of students' mastery on these tests because it impacts the school's ability to function and progress.

Middle school high-stakes testing focuses on mathematics and reading (Faulkner & Cook, 2006). Feasibly, math and reading can be taught across the curriculum, but in preparation for these high-stakes tests, teachers are encouraged to place a greater focus on presenting students with relevant math and reading material to the exclusion of their content area. This unbalanced focus decreases emphasis on non-tested subjects such as social studies. Social studies material is deemed irrelevant and less significant especially during test preparation and generally in middle school. The perception of social studies' irrelevance leads to its disappearance (Stanley, 2001). This disappearance is problematic because social studies' perceived irrelevance is further communicated to students who internalize this belief and question social studies' significance to their academic achievement. Teachers should instill social studies' relevance through appropriate instructional strategies. Middle school social studies teachers are being provided with inadequate training, which is a disservice to students (Ehman, 2002). Even less emphasis is placed on available and compatible technology instructional strategies for social studies. Teachers begin to teach themselves various technology integration techniques, but are not always successful due to insufficient time for relevant training in technology's implementation and applicability for social studies instruction.

The rationale for this study was two-fold: emphasis of technology in Alabama and importance of gauging teacher perceptions. This study examined the perceptions eighth grade world history teachers in West Alabama possess toward the impact of technology integration on students' learning of world history. In many cases, world history is reserved for high school, but in Alabama world history is taught in the eighth grade. Instructional strategies in middle school are developmentally different to accommodate for middle school students' mental capabilities to process complex material. Alabama's focus on technology integration impacts teachers' abilities

to effectively instruct students. The Alabama Course of Study stipulates the factors deemed important for inclusion in world history curriculum (Alabama State Department of Education, 2010). Complex and controversial issues ,such as world religions and cultures, Reformation, impact of World War I and II, etc., indicate the wide range of material eighth grade students are expected to learn for mastery of world history content standards. This study evaluated the relationship between technology standards and eighth grade world history teachers' perceptions of technology integration's impact on student learning.

Teachers' perceptions were important to examine because these perceptions impact the methods of instruction teachers decide to implement. The instructional strategies teachers choose to incorporate impact the manner in which students learn, grasp, and comprehend world history material. These pedagogical decisions lead to the effectiveness of instruction and success of students' academic development (Clark & Yinger, 1977). Teachers' perceptions dictate their teaching methods, instructional strategies, and expectations of students' learning. Instructional strategies should be chosen because of the strategies' ability to enhance students' learning and understanding, but teachers' perceptions weigh heavily on their pedagogical decisions.

Research Questions

To understand the challenge faced by eighth grade world history teachers in West Alabama, four research questions were generated and considered:

1. How are eighth grade social studies teachers in West Alabama using technology to enhance teaching of the world history curriculum?
2. What are teachers' perceptions of how their use of technology in their world history classroom impacts student learning and engagement?

3. What barriers do social studies teachers face when integrating technology in their classrooms?

4. What support, including formal and informal training, do social studies teachers have when integrating technology in their classrooms?

Assumptions

In conducting this research study, the following assumptions were made:

1. The teachers who agreed to serve as participants in the study, answered questions truthfully.
2. The participants who agreed to conditions of the study participated in all activities.

Limitations

Limitations in conducting this study were realized and acknowledged. Only five teachers were selected to participate in this study. This small number made it difficult to generalize teacher participants' perceptions to other eighth grade social studies teachers. Teachers were employed in the same school district. Although there was diversity among the schools, there were similarities when teachers were from the same school district.

Definition of Terms

Terms that will help clarify the purpose of the research study are defined as follows:

Meaningful learning: Goes beyond the rote memorization of facts and dates for performance on tests, rather it ensures that students are learning how to utilize critical thinking skills to analyze and apply the basic principles and concepts (Rose & Fernlund, 1997).

TPCK/TPACK: The ability for the teacher to use his/her knowledge of technology, pedagogy, and content to enhance the learning experience of his/her students. The ability to acknowledge the varying skill levels of the students, how they learn, and determine the best learning strategy to reach the students. TPCK received much disdain because of the difficulty of the acronym and the framework. Thompson and Mishra (2007-2008) met with teacher educators to modify and simplify the framework. After collaboration, TPCK was transformed into TPACK. This change signifies more than the addition of the “A.” First, this change signifies the three types of knowledge (technology, pedagogy, and content) (Thompson & Mishra, 2007-2008). Second, the addition of the “A,” which stands for “and,” illustrates that the three kinds of knowledge should not be implemented in isolation, but rather should be the “Total PACKage” (Thompson & Mishra, 2007-2008).

Technology integration:

Effective integration of technology is achieved when students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally. The technology should become an integral part of how the classroom functions--as accessible as all other classroom tools. (International Society for Technology in Education, 2002, p. 3)

Middle school: “A school at a level between elementary and high school, typically including grades five through eight” (The American Heritage Dictionary, Retrieved July 1, 2010 from <http://dictionary.reference.com/browse/middle+school>).

CHAPTER 2

REVIEW OF THE LITERATURE

This literature review provides a brief overview of research relative to this study's topic: *Eighth Grade Social Studies Teachers' Perceptions of the Impact of Technology on Students' Learning of World History*. The following are categories significant to the examination of eighth grade social studies perceptions: middle school culture, curriculum in the middle schools, status of technology in the schools, TPACK, teachers' perceptions of technology integration, benefits of technology integration, barriers to technology integration, and teacher education.

Middle School Culture

Middle School Philosophy

It is imperative for middle school social studies teachers to familiarize themselves with the philosophy and purpose of middle school. This recognition is beneficial to middle school social studies teachers when addressing how students' cognitive development impacts the instructional learning strategies conducive to students' learning. Mills and Pollack (1993) suggested that middle school students should be given opportunities to increase their academic success and self-concept through cooperative, hands-on, and problem-solving learning activities. They also recommended that an atmosphere conducive for middle school students is safe, comfortable, and familial. Learning activities are more cooperative and discovery-based to enhance students' social skills and increase understanding through construction of knowledge (Mills & Pollack, 1993).

Sanders (1999) concurred with Mills and Pollack (1993): first, middle school teachers should be attentive and respectful to students; second, flexibility in curriculum and learning strategies increases students' intrinsic motivation; and third, learning strategies should be value-based. These assertions are consistent with research that has shown that grades, motivation, and interest drop when students transition from elementary to middle school (Haselhuhn, Al-Mabuk, Gabriele, Groen, & Galloway, 2007). In the position paper, *This We Believe*, the National Middle School Association (NMSA) recommended that to equip students with tools to become productive citizens, middle school teachers should use instructional strategies that enhance students' critical thinking skills, implement digital tools into instruction to encourage student collaboration, develop students' ability to exercise ethical judgment, and research instructional learning activities that encourage students' construction of knowledge (The National Middle School Association (NMSA), 2009).

Researchers also analyzed the problem of negative perceptions of middle school students toward social studies. A survey research study conducted in a Southeastern state examined the likes and dislikes of 480 middle school students via administration of anonymous surveys. Results revealed that middle school students enjoyed learning through multiple learning strategies such as technology instructional tools, field trips, and collaborative learning activities. Middle school students disliked the passivity of learning through lecture, worksheets, and rote memorization (Russell & Waters, 2010). These findings are significant and beneficial to middle school social studies teachers because it reveals learning strategies that lead to a more effective learning environment.

Eighth grade was cited as an important developmental year because of the significant impact academic achievement has on college and career readiness (ACT, n. d.). Research

concluded that eighth grade students who are performing poorly will be severely challenged in high school and ill-equipped for college and their career. Researchers recommended that teachers design and implement learning strategies that will address the “forgotten middle” (ACT, n. d.). Similarly, researchers have reported that if eighth grade students were faced with multiple risk factors, their anticipated graduation rate was estimated at 60% (Heller, Calderon, & Medrich, n. d.). The difficulty middle school students’ face has adversely influenced their motivation levels.

Motivation in the Middle School

Several factors impact how students learn and teachers teach in middle school. One particular factor is students’ and teachers’ achievement goal orientation (Haselhuhn et al., 2007). The researchers identified two specific goal orientations: mastery and performance. Students who possess mastery goals desire skills that ensure competence and progression toward skill mastery, whereas students with performance goals seek to perform tasks well and avoid being perceived as incompetent. Teachers also are affected by goal orientations. Middle school teachers were more apt to be performance goal oriented, which led to less challenging coursework, emphasis on teacher-centered instruction, and stress on ability rather than effort (Haselhuhn et al., 2007). Teachers may not be cognizant of the impact of their perceptions on students’ performance and academic achievement. Teachers should be encouraged to reflect on their beliefs and how their beliefs impact pedagogical decisions and influence students’ learning and motivation.

It is essential to acknowledge that motivation is intrinsic, whereas inspiration is extrinsic. Extrinsically motivated students can be influenced by external forces such as accolades and rewards. However, intrinsically motivated students possess inner forces that lead to goal

accomplishment (Bowman, 2007). Researchers discovered that students enter school with high levels of motivation, but someone or something stifles this motivation (Haselhuhn et al., 2007; Hernandez-Ramos & De La Paz, 2010; Sanders, 1999). Although motivation is intrinsic, outside factors can positively impact students' motivation such as students' need for equity, praise for academic achievement, and collaboration among peers. Students desire to be treated respectfully and equally, receive positive reinforcement on academic achievements, and sustain a healthy level of camaraderie among peers (Bowman, 2007).

Curriculum in the Middle School

Middle school curriculum has been highly debated and contested. Several organizations and associations have developed guidelines and benchmarks for what is important for curriculum composition. Ongoing discussions examine the nature of curriculum in middle school, social studies, and eighth grade.

Middle School Curriculum

According to the National Middle School Association (NSMA, 2009), a middle school curriculum should (a) address adolescents' development, challenge students with high expectations; (b) empower students with skills for academic achievement; and (c) provide students with equitable opportunities to learn. These characteristics can be incorporated into instruction via technology integration. Students use computers, cell phones, MP3 players, etc. daily and these technology tools have educational implications for the classroom. Teachers should proactively evaluate the implications these technology tools hold for middle school students. Spires, Lee, Turner, and Johnson's (2008) study gauged 4,000 middle school students'

perceptions on school and technology. Conducted through surveys and focus group sessions, students affirmed they want schools to look similar to their outside world, including computers with Internet connectivity and cell phone use. Students also reported their desire for teachers to recognize their need to actively engage with content through technology and this engagement's impact on their future (Spires et al., 2008). Students attended school in the same school district, which prevents results from being generalized to the entire population of middle school students. Evaluating middle school students' perceptions elicited relevant insight to probable instructional technology tools for classroom incorporation.

Social Studies Curriculum

The National Council for the Social Studies (NCSS, 2008) examined social studies curriculum and provided recommendations for curricular development by stating that social studies curriculum should be meaningful, balanced, value-based, challenging, and active. Students should be able to connect historical events with current events and recognize social studies' relevance to their personal experiences. Students also should recognize the relationship between the social studies disciplines. In addressing controversial social studies issues, teachers can educate students on how to grapple with and reflect on the implications of the issues on society and themselves. Encouragement to think critically about historical events and employment of problem-solving skills to suggest solutions to social issues are probable activities during social studies instruction. Transmission of social studies content is not reserved for memorization to perform well on tests, but also how to apply social studies concepts during daily routines. Social studies curriculum in the middle school has undergone numerous attempts at reform, but many factors influence curriculum development and implementation.

Four distinct characteristics of middle school social studies are (a) the development of concern about self, (b) the development of a concern for right and wrong, (c) the ability to grow in, concern for others, and (d) the possession of a concern for the world (NCSS, 1991).

Developmentally, middle school students are beginning to develop a concern for self-image and self-esteem. To assist students during their development, teachers can use instructional strategies such as journals, biographies, presentations, and portfolios. These strategies provide students with creative license to discover their identity, communicate effectively with others, and enhance higher-order thinking skills. Social studies curriculum has a component to instruct students in character education and ethical behavior. Instructional strategies for character development are debates, role-playing, and simulations. These activities increase students' critical thinking skills and help them internalize ethical behavior. The social portion of social studies is designated to develop students' social skills and their ability to collaborate and cooperate with peers. Cooperative learning, group projects, and presentations are instructional strategies that can be incorporated to enhance students' social skills.

Students sometimes are not fully aware of the rationale of why they should learn social studies. They are constantly given the familiar adage that individuals need to learn about the past so they do not repeat the same mistakes. Due to this confusion, social studies is portrayed as a boring subject with no real purpose. High-stakes testing has fed into this stereotype because teachers find it necessary to teach information for the test, which is perceived as a host of disconnected facts and dates. Research has shown that students do not dislike social studies content so much as the way it is taught (Journell, 2009). Changes in social studies curriculum do not have to focus on content but pedagogical strategies of teaching content.

Technology can assist in changing the perception of social studies through providing students opportunities to construct their own knowledge and interpretations and getting them actively engaged (Journell, 2009). Using technology does not automatically motivate or engage students with the content. A purpose and focus must be expressed so students understand the rationale of using technology. Technology, such as digitized primary source documents, simulations, and virtual field trips, can help students become emotionally engaged with the content. These types of instructional strategies enhance students' ability to have "historical empathy" for the individuals they study (Journell, 2009). Students also should be led to make connections between historical and modern events. Without this connection, social studies is viewed as the memorization of facts and dates for a test without truly learning social studies. Making these connections also help students learn how to think historically. In order to think historically, students should attempt to channel their preconceived thoughts and presentism and look at the historical event in its context. This act proves to be difficult, but essential to a deeper understanding of historical events and characters.

Reforming social studies instruction. Traditionally, social studies has been taught in a teacher-centered format with the textbook used as the primary, and oftentimes only, resource for teaching. This reliance on textbooks by social studies teachers should be challenged and teachers should be skeptical and critical of the textbook. The textbook should be used as a secondary source complemented with primary source documents and technological instructional tools. Centering the curriculum on social studies issues and allowing students to be actively involved in the curriculum could be part of the reform process for the social studies curriculum. Students

could find the curriculum to be more meaningful and relevant through this active and constructive participation (Brum, Bouldin, & White, 2000).

When beginning the reform process of the social studies curriculum, one must consider what is already in place, determining the strengths and weaknesses. One practice that has been widely accepted in the social studies curriculum is the utilization of basal textbooks. This is important to consider because the majority of social studies teachers are using the textbook as their primary resource. Being knowledgeable of what is in these textbooks and how they are selected can assist in the reformation of the social studies curriculum and instruction. By definition, “a basal textbook represents the major elements that the author or publisher regards as basic to provide an appropriate social studies curriculum for a particular grade or subject” (Martorella, 2001, p. 80). This is significant to realize because no two people will find the same social studies elements to be basic; therefore, each basal textbook will be based off of different premises. Knowing this, it would not be feasible for a social studies teacher to put all of his/her weight behind one textbook as the social studies content knowledge the students should receive. This, in essence, does the students a disservice because they do not receive the full picture of the realm of social studies. If teachers could be more active in the textbook selection and adoption process, their wisdom in this area would be increased. This does not seem wholly probable because Alabama is one of 22 states where the state determines which textbook will be selected and adopted. Although teachers are sometimes involved in the adoption and selection process, there are others on the committee who may not have the mindset to determine what constitutes basic social studies knowledge for the students and which textbook would best suit their needs. This is an area that can be addressed when revamping the social studies curriculum (Martorella, 2001).

Although reform movements for curriculum began with math and science in the 1950s, as these reform movements gained momentum and financial backing, other scholarly dignitaries, beginning in the 1960s, began to convene meetings discussing what curricular reform could be conducted in the area of social studies. This began renovation of social studies through “Project Social Studies,” also known as “the new social studies” (Evans, 2004, p. 126). These social studies projects gained financial support from such prestigious institutions as the National Science Foundation (NSF), Ford, and Carnegie. These projects were created to reform the way teachers taught, material students would be asked to learn, and new instructional materials to assist in reform. Although the social studies reform movement began as an innovative concept, it did not end well. In analyzing the problem, there was a realization that the reform was a failure from the beginning. When social studies succumbed to an issue-centered curriculum but never really got to the root of the problem, such as what and why students learn social studies, how to modify the teaching methods, and how to change the curricular materials, it was a failed start. Having an issue-centered curriculum added to the dilemma of social studies not having a firm and stable definition. When reform efforts failed, social studies reverted back to the 1916 definition and continued to operate under it. The confusion that occurred during this reform age caused a decline in social studies that has not been fully recovered. The question now is what can be done to reform social studies that would have a positive and lasting impression. Utilization and integration of technology in social studies is a recurring theme that may have the potential to advance the cause of social studies reform (Evans, 2004).

When determining what changes and modifications need to take place in social studies curriculum, it is imperative to examine social studies’ current status. In 2006, a study was conducted, which involved 15-minute telephone interviews with 1,051 randomly selected

second-, fifth-, and eighth-grade social studies teachers across the nation. Findings shed light on the big picture of the social studies classroom. There were several areas with consensus among the teachers interviewed. Examples of these themes were social studies is not given a lot of time in elementary schools; schools felt that social studies was of low importance in comparison to other subjects; social studies should be about embracing cultural diversity rather than just learning about American heroes; social studies teachers would prefer to use student-centered instruction, but actually teach using teacher-centered instruction; social studies teachers felt they were not prepared with high quality; social studies teachers believed areas in need of professional development were learning to improve their subject matter knowledge and learning better ways to present the content; many of the teachers saw no harm in testing and no child left behind in teaching social studies, but the eighth-grade teachers were more dissatisfied with testing than the second- and fifth-grade teachers; and social studies teachers realized that their personal beliefs had a large influence on the way that they taught social studies to their students (Leming, Ellington, & Schug, 2006).

Eighth Grade Social Studies Curriculum

The traditional method for teaching social studies is through lecture. Because of the make-up of social studies, it lends itself to storytelling, which tends to turn into daily lectures. Students, especially eighth grade students, need variety in their instruction and learning activities. Research has been conducted on the effects of eighth grade social studies students' creation of a mini-documentary to illustrate and apply their knowledge in comparison to eighth grade social studies students who were not afforded the same opportunity (Hernandez-Ramos & De La Paz, 2009). In both schools, the students were learning about westward expansion. In the

school in which the students worked in groups and utilized technology to complete their project, they were taught how to read and analyze digital primary and secondary sources, how to effectively take notes, and how to use the multimedia software necessary for completing the project. After the students completed the unit and their project, they presented it to their fellow classmates and later to the school, parents, and community members during an open house. In the comparison school, digital primary and secondary sources and multimedia materials were not provided. Through observation, teachers at the comparison school did not become constrained to just teaching facts and dates for students to memorize but they also engaged their students in simulations, which were seen as useful. Through analyzing the data, which were derived from knowledge tests and surveys, it was found that both of the schools started out on the same level of content knowledge for fair comparisons, both had a significance of $p = .000$. The school in which the eighth grade social studies students worked in groups to create the mini-documentary learned more about westward expansion than the comparison school, which engaged in whole class instruction. The findings also showed that students had positive feelings about working collaboratively with their classmates, which directly correlates with what the NMSA saw as a beneficial learning strategy for students at this age level. Eighth grade students who created the mini-documentaries felt that completing the project helped them learn the material, enjoyed the active involvement, and felt the skills acquired could be applied to future projects (Hernandez-Ramos & De La Paz, 2009). Findings from this research study suggested the potential for technology integration in the eighth grade social studies classroom and tangible benefits and advantages to students' ability to learn content.

Status of Technology in Schools in the United States

Looking at the status of technology in schools can provide an idea of what teachers are dealing with in attempting to integrate technology into their classrooms. Taking a historical view back in history will assist in understanding what has been expected of education over the years. One important report was *A Nation at Risk*. This report, written in 1983, attempted to detail all of the ills and problems with public education and strategies and recommendations that could rectify the situation.

Taking a look at educational policies provides insight into what areas of education are in need of change and modification. Taking a retrospective view back to the educational policy that started the trail for improvements in education can provide in-depth information into where the status of technology in education began. The *A Nation at Risk* report recommended higher and stricter expectations for students, testing in order to be promoted from one grade to the next, continual upgrading of textbooks, and instructional strategies that utilized the most current technology (Goldberg & Harvey, 1983). Dating as far as back as 1983, it was established that there are potential advantages for students' enhancement of academic achievement through the utilization of technology. With the thought the American educational school system was at risk and they were academically behind other industrialized nations, the National Commission on Excellence in Education suggested recommendations to improve the American educational school system. This federal report encouraged more schools to improve their practices of helping their students achieve educationally and raising expectations for their students. In the aftermath a decade later, Bell (1993) provided his reflections of *A Nation at Risk*.

Reflecting on the statements that American schools were mediocre, at best, many standards were created for accountability of students, teachers, and schools. Although teachers

were doing their best to raise expectations and enforce standards, they were essentially blamed for the mediocrity of the academic achievement of their students. In order to lessen the burdens of teachers, a suggestion for improvement was in integrating technology. There were many innovative tools in technology that could help in delivering the subject matter to students and communicating better with parents. The problem was computers were taken out of classrooms and placed into computer labs so they were not distracting, but there is a need to put computers back into the classroom to effectively integrate technology into instruction (Bell, 1993).

The United States, as a whole, is known for its ability to be superior as an industrialized nation. Technologically, the United States has soared in its capabilities, but in the area of education, the United States sometimes falls short of other industrialized nations. Examining the status of technology in the United States as it relates to educational technology provides insight into areas to be changed to accommodate for shortcomings and bring improvements.

It has been reported that there can be benefits of improving achievement through technology integration but it will depend on the school. Osorio-O'Dea (2001) suggested that teachers' ability to utilize technology in their classroom is essential and that there also should be modifications to the curriculum that connect technology with instructional practices. Finances will have an impact on the ability of schools to use technology in their classrooms, but there are a few strategies to aid with this barrier. There also should be some modifications to social studies curriculum highlighting the importance and benefits of integrating technology. Teachers may take the effort to integrate technology into their classrooms more seriously if the curriculum reflects why it should be done and what are the benefits. Technological tools can lead to an increase in the students' achievement and being able to master challenging material. This

increase can occur by providing students and teachers with new ways of teaching and new resources to utilize (Osorio-O'Dea, 2001).

Successful integration of technology into schools takes training, resources, and time. This type of investment needs to be investigated to determine its worth and value to the individuals and institutions involved. If the technology is not useful or worthwhile, the implementation would prove better not being incorporated at all. A study was conducted in order to determine the return in investing technology in schools. In viewing this return, administrators, school systems, and policymakers can decide on the feasibility of the continuance of technology use. It was found that although there is evidence that computers can improve the students' performance on taking tests, more powerful usage of technology was an instructional tool to enhance problem solving and critical thinking skills. Many times when technology is integrated, it is done in a mundane matter (e. g., to visually display lecture notes from a *PowerPoint* through an LCD projector onto the screen). Until teachers' perceptions change about the factors involved in integrating technology into their classrooms, their ability to enhance student learning and increase critical and higher-order thinking skills may not come to fruition. Integration of technology also should seek to fulfill the individual needs of students. Such individual and intimate instruction with students lets them know that the teacher has high expectations for them. Teachers will do what is in their power to help students achieve their goals and improve in their academic achievement capabilities (Ringstaff & Kelley, 2002).

Culp, Honey, and Mandinach (2005) took a retrospective view back over a 20-year span to determine the status of technology in schools through looking at educational policies. They decided to begin their research of educational policy in 1983 with *A Nation at Risk*, the federal report, and going out 20 years, ending in 2003 after the passing of the No Child Left Behind Act

of 2001. The authors reported that *A Nation at Risk* “specified that all high school graduates should understand the computer as an information, computation, and communication device; be able to use the computer in the study of the other basics and for personal and work-related purposes” (Culp et al., 2005, p. 280). This signifies that 26 years ago the Commission on Education Excellence saw the importance and relevance of integrating technology into the classroom to enhance the learning capabilities of students.

A little under 20 years after *A Nation at Risk*, the No Child Left Behind Act was signed into law. The recommendations were “that by the eighth grade all students should be technologically literate and repeatedly references technology as an important source of support for teaching and learning across the curriculum” (Culp et al., 2005, p. 280). Teachers need necessary training in using technology in order to get students to be technologically literate. Teachers and students can see the value of integrating technology after being educated on the importance and benefits and also preparing them for any barriers that may arise. It is imperative that teachers are made aware of the level of technological, pedagogical, and content knowledge that is necessary for effective teaching with or without technology.

Becoming educated in the usage of technology in education involves being familiar with the corresponding standards. The International Society for Technology in Education (ISTE) developed standards that addressed students, teachers, and administrators and set expectations for each. Students should learn how to be creative and innovative in using technology; learn how to use digital media to collaborate with others; apply the usage of digital tools to conduct research and search for information; utilize digital tools to enhance their abilities of critical thinking, problem-solving, and decision making; understand how to ethically and legally use the computer; and be knowledgeable of how to use technology effectively and troubleshoot through

potential problems (ISTE, 2007). Teachers should use their content, pedagogical, and technological knowledge to enhance the learning of their students; use digital tools to create learning environments that cater to diverse learning styles and creative assessment techniques; model the usage of digital tools in the classroom and use these tools to communicate with their students, parents, and colleagues; model and teach the ethical and legal way of using the computer and engaging in collaborative communication with other cultures through the usage of digital tools; and continue to grow professionally in their technological knowledge through workshops, seminars, and research (ISTE, 2008). Administrators should share a vision to develop and implement technology to enhance the excellence and academic achievement of students; should ensure that teachers and students have access to digital tools that promote learner-centered instruction and cater to the diverse learning needs of students; should model the usage of digital tools as a method to enhance teaching and learning; should make sure they empower their teachers in the utilization of technology through providing time, materials, and access to professional development; should conduct research on their school to analyze the data and create strategies to improve on the integration of technology; and make sure that students have equitable access to digital tools for the enhancement of learning of the content (ISTE, 2009).

Status of Technology in Alabama

Technology in Alabama varies widely according to the location of the school district and availability of technology in the area. Research has shown that Alabama is doing well in the areas of Internet access, providing access through local area networks, and access to satellite technology. The area where Alabama is below the national average is the number of students per

computer in schools (Coley, Cradler, & Engel, 1998). This is consistent with research, which stated the lack of equitable access is a barrier in utilizing technology in schools.

In 2002, officials of the Alabama State Department of Education created and adopted a course of study in technology education. With the adoption of this course of study, officials sought to require that all Alabama teachers integrate technology into their classrooms. Officials aligned the content strands for this course of study with the ISTE standards. They enforced implementation of this course of study beginning in the 2003-2004 academic year. Content standards created by officials for this course of study were divided into minimum requirements of the content that should be taught in different grade levels. In Grades 6-8, there were six content strands: (1) Basic Operations and Concepts, which included such items as correct posture at the computer, learning to troubleshoot for problems, and learning the keyboard; (2) Social, Ethical, and Human Issues, which included such items as learning the effect of technology on the society and workforce, learning about copyright law and computer fraud, and learning how to cite electronic sources; (3) Technology Productivity Tools, which included such items as learning how to efficiently use word processing and spreadsheet software, learning how to design products such as web pages, and learning to collaborate using productivity tools; (4) Technology Communication Tools, which included such items as communicating online with peers to complete a project; (5) Technology Research Tools, which included such items as learning how to search using Boolean operators and learning to determine the accuracy of websites; and (6) Technology Problem-Solving and Decision-Making Tools, which included such items as resolving conflicts or debates by locating information using technological tools through research to defend the position (Alabama State Department of Education, 2002).

Alabama's Preparing Tomorrow's Teachers to Use Technology (AlaPT3) program created a survey to determine how Alabama teachers were integrating technology into their classrooms. This instrument was correlated with the IMPACT document that specified the technology standards for the state of Alabama. The survey was administered through a web server and teachers were randomly selected. Teachers had the following choices for answers: *Never, Occasionally, or Routinely*. There were 329 teachers from 10 schools in the state of Alabama who completed the survey. A factor analysis, through SPSS, was performed to analyze the results from the surveys. Researchers only did the factor analysis on one of the middle schools and later compared the results to the state of Alabama. Through factor analysis, five factors were indicated and subsequently labeled: (1) general instruction integration, which included such items as determining the proficiency of students using technology, using technology to assist students with special needs, and the creation of learner-centered lessons; (2) teaching students to use technology, which included such items as using technology to encourage collaboration between students, teaching students to troubleshoot potential problems with the computer, and teaching students how to use a variety of productivity tools such as word processing and spreadsheets; (3) managing technology resources, which included such items as determining what technology is available at the school, showing students how to safely and responsibly use technology, and providing equitable access to technology for students; (4) general technology skills, which included such items as the use of computers, printers, and digital cameras, using technology to locate information, and using productivity tools to complete personal and educational projects; and (5) essential conditions, which included such items as having software, hardware, technology, and support available to successfully integrate

technology into the classroom, having administrative support in technology integration, and having professional development to support technology integration (Ash, Sun, & Sundin, 2002).

The researchers concluded that the factor that had the highest *Never* responses was in Factor 2, which indicated that Alabama teachers are still at the novice level of effectively integrating technology into their classrooms. The highest percentage of *Occasionally* responses was in Factor 1, which indicated that Alabama teachers were at a moderate level of being knowledgeable of integrating technology into instruction. The highest percentage of *Routinely* responses was in Factor 4, which indicated that Alabama teachers had adequate knowledge of the usage of technology. These results revealed the perceptions of 329 teachers across the state of Alabama. There are perceptions that are relevant to teachers of all content areas and some that are directly correlated to one specific subject matter. Social studies teachers had unique reasons why they did not integrate technology into their classrooms (Ash et al., 2002).

Status of Technology in Social Studies

Social studies seeks to develop, mold, and shape students into informed and productive citizens. In doing so, social studies teachers must keep students abreast of their surroundings, which, in this day and age, encompass the emerging world of technology. In the social studies classroom, teachers can devise ways to integrate technology for learning the content and the students' growth as citizens. Research speaks of the benefits and barriers of integrating technology into the social studies classroom. An affordance that was detailed was the ability to easily access historical documents such as primary source documents, archives, and images that, before this wide age of technology, was nearly impossible to make readily available. By instilling in students this ability to locate historical resources at a moment's notice, it also

reinforces the concept that social studies is always changing and evolving. Using primary source documents allow students to become actively engaged in their learning of content and their development as productive citizens (Hicks, Friedman, & Lee, 2008).

In social studies, usage of technology is not a common occurrence. In a report of the status of technology in United States schools, it was revealed that around 30% of eighth grade social studies teachers were using technology in their classrooms (Coley et al., 1998). It was also found that among some groups of students, there were differences in when and to what extent teachers utilized technology. For example, the report stated that White eighth grade students were more likely to have teachers use the computer to teach them the content than Black or Hispanic eighth graders (Coley et al., 1998).

Issues that have faced social studies teachers as they attempted to integrate technology into their classroom included that although the learning of social studies is constructivist in nature, it does not mesh well in the age of standardized, multiple-choice, and high-stakes testing that now occurs more in schools. Other problems included that preparing to successfully integrate technology takes a large amount of time and effort on the part of teachers and students. Another issue is the fact that some resources located on the Internet may not have high reliability. With proper preparation and training, technology has the potential to revolutionize the way teachers teach and the way students learn social studies (Hicks et al., 2008).

NCSS prepared a position statement of the guidelines of technology in social studies. Several guidelines put forth were students should be provided with instruction that goes beyond what can be done without technology by viewing such things as digital archives and primary source documents, which teach students how to think critically and historically; technology should be given to students in context of the content and not just for the sake of using

technology; students should be made aware of technological issues such as the digital divide and inappropriateness of some of the information located on the Internet; use the technology to enhance the students' ability to grow as productive citizens in a democratic society by learning about varying perspectives of historical events; allow students to visit websites that give them a call to political and civic action; and conduct research and report the findings to continually improve the way technology is used in the social studies classroom. Focusing on these guidelines could lead in an improvement of how social studies teachers make learning content more meaningful and relevant (NCSS, 2006).

Technology tools in the social studies. Many new technology tools are available for use in secondary social studies classrooms. One such tool is digitized primary source documents. Many universities and museums, such as the Library of Congress and the National Archives, have made primary sources available online, making them easily accessible for teachers and students. Research has suggested that in order to enhance the understanding of students, they must be actively engaged and emotionally connected with the content (Tally & Goldenberg, 2005). Utilizing primary source documents gives students this opportunity by reading first-hand accounts of historical events. Students' ability to think critically also can be enhanced through reading primary source documents. Students can sense the biases exhibited in the primary source documents and realize the difficulty of historians when trying to piece together historical events. Reading primary source documents also provides students with multiple perspectives and they can understand there are many sides to every story (Tally & Goldenberg, 2005).

Another way to effectively incorporate technology into the social studies classroom is through "Historical Scene Investigation (HSI)" (Swan, Hofer, & Gallicchio, 2006). The strategy

behind HSI is to get students to investigate history through analyzing primary source documents and “crack the case.” This activity teaches students how to think historically and critically. HSI is organized similar to a crime scene investigation. Students are provided with hyperlinks to various primary source documents in order to answer a pre-established question. An example case involved deciphering primary source documents in order to determine what happened to a runaway slave. Students had to read the documents and decide if the documents were credible and reliable (Swan et al., 2006). This activity increased the interest of students because they were not being told what happened, but rather had to determine for themselves what happened. “Cracking the case” gave students ownership over their learning as they constructed their own knowledge. The activities showed students how history can have various interpretations depending on perceptions. The activities also taught students about biases in historical documents and how to objectively determine credibility and reliability. These analytical skills can be further used while students watch the news, read the newspaper, and listen to others. The students will have the skill set to consolidate information that is relevant and discredit information that is irrelevant (Swan et al., 2006).

Games are another method to teach content. Games may be a reward for students’ good behavior or a way to glaze over content. The important task in creating educational games is to ensure the context and purpose of the game is directly related and connected to the content. One method of games used in the social studies classroom is *PowerPoint* games. One way to help students gain more meaning from the *PowerPoint* game is to allow them to create the game from scratch. The creation of the game helps students learn how to construct their own knowledge by determining what material is relevant for inclusion. These homemade *PowerPoint* games also allow teachers to use their technological pedagogical content knowledge (TPCK) (Barbour,

Rieber, Thomas, & Rauscher, 2009). Teachers do not have to have a high level of technology knowledge because many teachers are already knowledgeable of *PowerPoint*. Pedagogically, teachers can allow their students to construct their own knowledge, write about the content, and generate relevant questions. Content knowledge can be exhibited through the material taught and used to include in the *PowerPoint* game. Providing this well-rounded learning experience can provide students with the opportunity to learn social studies on a deeper and more meaningful level (Barbour et al., 2009).

Technological Pedagogical Content Knowledge (TPCK)

Pedagogical Content Knowledge (PCK)

In their training, teachers were taught that content and pedagogical knowledge is necessary in order to reach and teach their students the content. This emphasis was illustrated through the work of Shulman (1986) as he described Pedagogical Content Knowledge:

A second kind of content knowledge, which goes beyond knowledge of subject matter per se to the dimensions of subject matter *for teaching*. . . . Pedagogical content knowledge also includes an understanding of what makes the learning of specific topics easy or difficult: the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of those most frequently taught topics and lessons. (p. 9)

Teachers should be knowledgeable of how to teach their content and how to tap into the cognition of their students in such a way that it reaches as many students as possible.

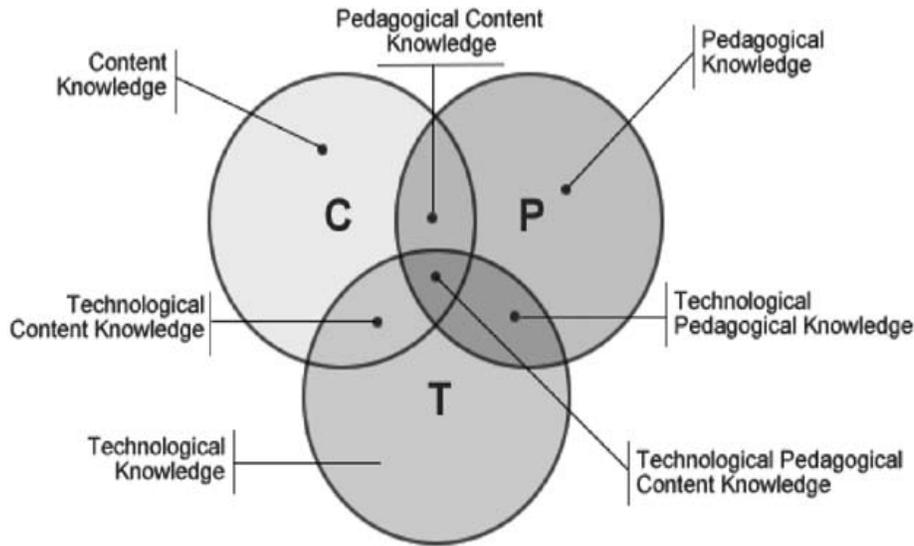


Figure 1. Technological Pedagogical Content Knowledge (TPCK) (Koehler & Mishra, 2008, p. 12).

Technological Pedagogical Content Knowledge (TPCK)

To build from Shulman’s (1986) PCK framework, technology was added as another component. The addition of technology in instruction stems from the theoretical framework devised by Mishra and Koehler (2006) and their creation of the term Technological Pedagogical Content Knowledge (TPCK). They defined TPCK as follows:

TPCK is the basis of good teaching with technology and requires an understanding of the representation of concepts using technology; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help redress some of the problems that students face; knowledge of students’ prior knowledge and theories of epistemology; and knowledge of how technologies can be used to build on existing knowledge and to develop new epistemologies or strengthen old ones. (Mishra & Koehler, 2006, p. 1029)

With the extensive attention to detail given in this definition, it is clear being knowledgeable of technology and introducing it into the classroom is insufficient. In relation to social studies teaching and learning, TPCK explicitly describes a teacher who is knowledgeable of the subject

matter, knowledgeable of how to teach that content in an understandable and comprehensible manner to the students, and knowledgeable of how to effectively utilize the technology.

There also are implications that TPCK can have on teacher education programs and in-service teachers. Training teachers for integration of technology into their classrooms must extend beyond the workshop approach and must be taught in a context that honors the connection between technology, content, and pedagogy (Koehler & Mishra, 2005). There is intentional effort in preparing professional development that assists teachers in technology integration. Providing training on how to use technology is not enough to support teachers' ability to grow in their TPCK. Training should provide contextual examples of how teachers could feasibly incorporate technology into their social studies classroom. As it relates to TPCK, it is better to learn about the parts to understand the whole.

Many policymakers develop and urge teachers to implement new technologies and innovations into the classroom, so why do teachers not succeed? Research suggested that innovations often fail due to three overarching reasons: teachers are not knowledgeable of pedagogical purposes of certain technologies, such as cell phones and cameras; teachers believe new technologies will do students more harm than good; and an inordinate focus has been placed on the technology but not instructional purposes (Mishra, Koehler, & Kereluik, 2009). Technology is ever-evolving. This evolution makes teachers' job of keeping up with the newest technologies and their pedagogical implications more important and challenging. Having knowledge of technology is not sufficient, but teachers also should have pedagogical and content knowledge to effectively implement technology with learning strategies. When hinging teaching performance on the TPACK framework, teachers can evaluate their entire instructional method rather than one aspect. The TPACK framework also can help teachers determine which

technologies are relevant and worth learning for instructing their students (Mishra et al., 2009). Learning every new technology is not feasible, but evaluating these technologies and choosing the ones that will be beneficial can make students' learning experiences more meaningful.

When determining which technologies could be advantageous for students, technologies considered to be "hot" by students should not be discounted (Mishra & Koehler, 2009). Teachers have to repurpose the use of these technologies for educational purposes. For example, blogs, wikis, and GPS were not created for educational purposes, but teachers have repurposed these technology tools for educational use. In the TPACK framework, knowledge of technology, pedagogy, and content are not focused on in isolation. When teachers determine a technology tool to use with students, they also should consider how the content will be taught through technology and devise pedagogical strategies to get students involved and engaged.

Transforming the use of "hot" tools for educational purposes calls for teachers to be open to change and learning ways to use the technology with their students (Mishra & Koehler, 2009).

When students are actively engaged with social studies content, they can develop a deeper understanding of the content. Learning social studies content also can be meaningful when students are given the opportunity to collaborate with peers to construct knowledge (Nelson, Christopher, & Mims, 2009). Web 2.0 technology tools such as wikis and online discussion boards afford students the opportunity to collaborate with peers more extensively. Developing the social skill of collaboration and learning about social studies can enhance students' ability to think critically, problem-solve, and make critical decisions. These life skills can help students connect with social studies content in more meaningful ways and comprehend the relevance of learning the content.

Components of TPCK

The components of TPCK are technological, pedagogical, and content knowledge. In order for social studies instruction to be effective, teachers should be knowledgeable of content; use proper pedagogy to convey content; and use, when preferable, technology that enhances and enriches students' learning of social studies content. Analyzing each of the components of TPCK and then connecting their relationship to one another can help teachers realize the prevalence of all three components being in harmony. Making claims of how technology impacts education without emphasis on content and pedagogy is easily done. Researchers need to incorporate findings about technology with how it will impact teachers' content and pedagogical knowledge. All three components should be working in harmony, in order for TPCK to be effective in the classroom. Technology integration is a topic that has received scrutiny in regard to its benefits to students and enhancing of teachers' ability. Questions asked of the advantages of technology integration are essential if technology is to be adopted. Technology should be interesting and challenging, provide a sense of ownership, support good pedagogy by being active and collaborative, allow for constructive learning, and emphasize reflection and feedback. Pedagogy and technology should be directly connected. Technology should provide teachers with innovations that challenge students. Technology should encourage participation and collaboration between teachers and students. This active participation will manifest in enhancement of academic learning and achievement. TPCK has an impact on how technology is integrated into the classroom and how it connects with teachers' content and pedagogical knowledge (Ferdig, 2006).

Conducting research on TPCK and social studies to find recent research literature on the topic has become problematic. Results from such a search bring up topics that deal with

preparing pre-service teachers to embrace TPCK when they get their future classroom. This implies that TPCK is deemed important for inclusion in teacher education programs. This search also reveals the need to conduct research on how teachers are actually using TPCK to enhance teaching and learning. Hammond and Manfra (2009) suggested that social studies instruction be directly aligned with these components of TPACK. They provided a three-part model to attempt this alignment: giving, prompting, and making. In the giving portion of the model, the authors provided the statement, “Tell it to me straight” (Hammond & Manfra, 2009, p. 164). This portion of the model is when teachers simply transmit necessary information to students through direct instruction. The authors also felt that using technology to facilitate this giving of information could prove beneficial to students by supporting the information (Hammond & Manfra, 2009).

The second part of the model is prompting, which begs the question, “What do you see?” (Hammond & Manfra, 2009, p. 166). In this portion of the model, teachers encourage students to go beyond the information directly given by the teacher and construct their own knowledge by interacting with the content on their own. This line of questioning enhances and develops students’ ability to employ higher-order thinking skills. Technology can be a useful instructional tool in prompting students to think. Examples provided by the authors were using YouTube video clips to invoke discussion or interacting with digital history such as electronic primary source documents and images (Hammond & Manfra, 2009). These technology tools are seen as supportive of the learning process and aiding in transitioning from the traditionally passive teacher-centered social studies classroom to one that is active, engaging, and student-centered.

The third and final part of the model is making, which hinges on the concept of students showing what they know. In this portion of the model, students produce a product that exhibits the knowledge they have attained from the social studies instruction. Students initiate the usage

of technology during this final stage of the model by creating their final product via, for example, presentation software or web-based technological tools such as wikis and prezis. Students also were encouraged to conduct their initial research using technological resources (Hammond & Manfra, 2009). Technology is only as useful as it is allowed to be. Integrating technology into social studies instruction will not magically determine the outcome of the absorption and retention of the content, but a thoughtful process must be employed before considering its inclusion.

Many teachers are unaware of TPCK, which illustrates the importance of educating them and others involved with education. Teachers should realize that in order to effectively use their TPCK when teaching their students, they must be aware of the various learning activities and strategies available. Teachers also should be aware of the variety of ways to mix and match learning activities to meet standards and objectives. Ensuring the chosen activity matches the learning objective and areas of content, pedagogy, and technology are combined logically, helps teachers more effectively determine the appropriate teaching and learning strategy. In social studies, and all content areas, there are three types of learning activities: knowledge-building, convergent, and divergent. In the knowledge-building learning activity, students are primarily concerned with learning the basic information about the subject matter. One suggested activity for social studies was allowing students to conduct inquiry by looking at historical data. Suggested compatible technologies for this learning activity were searching through websites and online databases and completing a *WebQuest*. The important thing to remember is that every activity is not created with technology in mind. Combining the learning activity with a compatible technology is what leads to an effective learning and teaching strategy. Determining the best combination takes time, effort, and careful consideration. The second kind of learning

type is convergent, which involves students expressing the knowledge they have attained by responding to something already created. An example of one learning activity was the answering of questions. Some compatible technologies included discussion boards and wikis, the classroom whiteboard, and the textbook. There should be an analysis by teachers on their anticipation of the activity and what would be the best technology, either digital or non-digital, to fulfill the needs of the students. The third learning type is divergent, which involves students generating and initiating the creation of some final product to exhibit the knowledge they have attained. One such divergent learning activity is the creation of a newspaper. Several suggested compatible technologies include desktop publishing software, word processing software, and wikis (Harris, Mishra, & Koehler, 2009). These learning activities and accompanying technologies reveal the framework of TPCK being put into practice. Making this information readily available and accessible to teachers could lead them to increasing their TPCK and how they use it more effectively to teach their students.

The ability of a social studies teacher to integrate their knowledge of technology, pedagogy, and content into their instruction has presented a challenge. It becomes even more of a challenge when pre-service social studies teachers are trying to learn how to mix these three components of TPCK into their instruction. Pre-service social studies teachers learn how to use their TPCK when teaching. Guidance and modeling of TPCK from teacher educators is important. Pre-service teachers should be afforded with a plethora of opportunities to observe and experience TPCK in action so they may be able to use it in their future classrooms. In a research study conducted by Wright and Wilson (2009), an examination of the experiences of two pre-service social studies teachers during three developmental phases was conducted: (1) methods block, (2) student Internship, and (3) first year of teaching. In their discussion, it

became apparent that the confidence level of teachers hinges on their level of technology use in the classroom. Both participants saw the benefits of technology on how students' developed and learned social studies content. They also understood the advantages of actively engaging students with learning the content. The teachers learned how to integrate technology throughout the entire instructional period and gave careful consideration to the content they wanted to cover. They began to realize that although they understood the benefits of technology integration, there were going to be some barriers they had to overcome such as collegial/administrative support and lack of accessibility. In light of these barriers, these pre-service social studies teachers remained motivated, remembering how advantageous the integration of technology was for their students' growth and academic achievement. As it relates to TPACK, the pre-service teachers placed more focus on technology than content. One of the pre-service teachers used technology as a classroom management tool, while the other was concerned about social studies content but did not venture outside of technologies acquired in the teacher education program. The research revealed that to effectively use TPACK, takes time, training, and effort and does not happen overnight (Wright & Wilson, 2009).

Many times when elaborate ideals and frameworks are introduced to individuals in the field of education, the ideals and frameworks are not always fully understood from the beginning. Sometimes what solidifies understanding is when it is presented in a practical way with teachers who are putting the framework into real practice. In the examination of two case studies by Cox and Graham (2009), a clearer picture of TPACK was illustrated. One case study focused on a science teacher who was teaching about valleys and how they were created. To keep her students focused and on-task, this science teacher used *PowerPoint* for lecture, class discussion, and presentation of pictures. She also realized there were some learning activities that

would be best performed without technology such as illustrating how to solve an equation on the whiteboard. She then began to understand there were learning activities that could not be fulfilled through *PowerPoint* or whiteboards. The science teacher decided to incorporate simulations. These simulations provided valuable hands-on experiences for students to actively engage in the learning process and learn the content. When teachers are able to consider all the components of TPACK, more effective learning and teaching experiences can occur. In the second case study, an eighth grade social studies teacher became aware of how to use weblogs. He was amazed at the number of weblogs he was able to locate and saw the prevalence of students learning about social studies from these first-hand accounts of real people across the world. After reading a number of weblogs, the teacher instructed the students to create their own weblog, under his advisement and guidance, detailing what was happening in their world. He was excited about how this activity could lead to the improvement of his students' writing and reflecting skills. Participating with weblogs also increased students' overall understanding of world events (Cox & Graham, 2009). Being able to choose an age and ability appropriate learning activity that teaches students content and incorporates technology is the epitome of using TPACK. Information obtained from this study can be influential to teachers, teacher educators, policymakers, curriculum coordinators, and other individuals actively involved in education.

Teachers' Perceptions of Technology Integration

When gauging teachers' thoughts, beliefs, and perceptions and how they affect teaching, it is beneficial to get this information directly from teachers. Getting the perceptions directly from teachers leaves little room for misinterpretation and provides information that may not have been received otherwise. When gauging the perceptions of secondary school teachers and what

they believed the role of technology in the classroom to be, it was found that four factors must be met before teachers would consider the usage of technology in their classroom. Resources such as material and leadership must be present and teachers should feel compelled to prepare their students for a technologically enhanced environment. Teachers also felt the administration should allow for time to master and practice using the technology so they can properly plan for its incorporation. These are relevant observations by teachers that may not have been verbalized if the teachers' perceptions were not gauged. Teachers' cooperation is vital in effective technology integration, so determining what they feel their needs are is vital (Saye, 1998).

Localizing the factors that affect successful technology integration into the classroom can lead to rich knowledge of what teachers are in need of and can lead to meaningful ways to supply teachers' needs through professional development and training. A quantitative study was conducted surveying classroom teachers on seven designated factors: views on planning, leadership, alignment of the curriculum, opportunities for professional development, use of technology, openness to change and adaptation, and how teachers use computers away from school (Baylor & Ritchie, 2002). Teachers' openness to change, whether enforced by their administrators or initiated by themselves, was essential to their adopting the technologies. As teachers integrated the technology into their classrooms, their own ability to use technology increased and so did their morale in their teaching abilities (Baylor & Ritchie, 2002).

The implication is no matter how much training or support a teacher is provided, if they are not open to change it will be less likely they will use the technology. The morale and technical competence of teachers is vital. If the teachers are not confident in their ability to use technology, they would not want to run the risk of bringing technology into the classroom and not be knowledgeable of how to effectively utilize it. All of these areas have the potential to

impact the perceptions of teachers when they are considering technology use in their classroom. With any new instructional tool introduced into schools, in this case technology, there will be initial concerns and questions.

Examining concerns and questions of secondary school teachers can open the realm of understanding what teachers perceive to be their immediate needs. It also can lead to determining what methods would be most successful and preferable to fulfill those needs and help teachers in their endeavors to use technology in their classrooms. Research was conducted that focused on the common concerns among a group of middle school teachers regarding using technology in their classrooms (Atkins & Vasu, 2000). One main reason teachers were less apt to integrate technology into their classroom was it was not easy to incorporate into their regular routine. This viewpoint of teachers can lead to the development of relevant training that can provide demonstrations of how to implement technology into their classrooms. Administrators and policymakers, after careful consideration of the perceptions of these teachers, can devise a plan for professional development to ensure their teachers are fully equipped and prepared to integrate technology into their classrooms. Although some teachers found the integration of technology into their classroom instruction an enlightening change, others felt more anxiety. Researching the experiences of these teachers is valuable in increasing the knowledge-base of how to help these teachers. Being knowledgeable of the concerns of teachers about technology integration can lead to more meaningful staff development that caters to their needs and skill levels. This staff development can potentially lead to more implementation and integration in the teachers' classrooms (Atkins & Vasu, 2000). These are useful statements to consider when ensuring that teachers are using the technology. Professional development that is designed for teachers can lead to teachers being more confident because they will become more technologically competent.

Whenever the needs of teachers are met, they are more apt to implement the suggested and recommended products, in this case technology. All of this, the concerns and perceptions, could undoubtedly lead to the reason why teachers are not using technology.

Additional reasons that teachers may not be using technology are technology does not logically fit into their philosophical and pedagogical beliefs of how to convey their subject matter. Gauging the teachers' pedagogical beliefs has the potential to provide insight into their concerns of why technology may or may not be the avenue of choice to instruct their students. There is value and importance in considering the teachers' pedagogical beliefs while trying to get them to integrate technology into their classrooms. Even when everything is in place for effective technology integration, such as training, access, and resources, if the integration remains low, there may be additional barriers. This is important because even though it is suggested that training and accessibility are the recommended items that need to be in place for successful technology integration, teachers' beliefs and perceptions are vital if they are to adapt and change to integrate technology. It can be implied that the increase of teachers' usage of technology can occur after considering the teachers' current classroom instructional practices and pedagogical beliefs. It is not the goal to change their beliefs but to locate technological tools that fit into their current belief system (Ertmer, 2005).

This is a very significant conclusion. Many times teachers do not attempt to integrate technology because the administrators and policymakers do not encourage them to integrate technology into their existing pedagogical belief system, but rather try to alter the teachers' beliefs and perceptions to fit the technology. As the research literature suggested, this is a very ineffective approach to successful technology integration. It is better to show these teachers how

to use the technology in conjunction with their pre-existing beliefs and assist them on ways that students can learn with the technology.

Teachers' Perceptions of Technology Integration in Social Studies

For many years, social studies teachers have been over-reliant on the textbook and dependent on a teacher-centered curriculum (Dunn, 2000), despite a plethora of innovative technology applications and tools. It is important to note that simply integrating technology into the classroom is not sufficient to positively impact students' learning. There are a number of factors that must be modified such as the pedagogy of the teacher and the social studies curriculum itself. When pedagogy and curriculum are considered to accommodate for the integration of technology, there may be an impact on the way social studies is taught and learned (Dunn, 2000).

Examining technology, pedagogy, and content are essential to determining what areas need to be modified to ensure that all of these components are working together and lead to the teachers utilizing their TPACK. Looking at the pedagogy of teachers and the way they view their curriculum and materials is vital to tapping into methods that may combine best for effective technology integration into the social studies classroom. A study was conducted that examined the relationship between an eighth grade U. S. history teacher's philosophy of teaching and his usage of resources on the Internet (Slekar, 1997). It was established that typically these teachers have been viewed as only disseminating facts to their students and the teacher used in this study was no different. The teacher was interviewed and observed and analysis of the data was shared with the teacher. Upon the conclusion of the study, it was determined that the philosophy of the teacher began to change. The teacher confirmed the fact that he still believed in a fact-based

history but also discovered that he had neglected the need and importance of interpreting history (Slekar, 1997). These findings are important in many ways. Teachers should perform self-examinations to determine whether their teaching method or the resources they are using is a hindrance in any way to the learning process of their students. Conducting such an examination can potentially reveal ideas not easily seen but can be remedied quite quickly and effectively. The teacher can learn to adjust and modify his pedagogy and philosophy so he can effectively accommodate his students' needs. There is value in this U. S. History teacher realizing that facts are important, but teaching students how to interpret history is also essential. His modification to his teaching philosophy could be an example for other social studies teachers.

Because training in usage and integration of technology were mentioned earlier as key steps in ensuring effective technology integration, it is important to see whether this training makes an impact on secondary social studies teachers' perceptions. Seventeen social studies teachers were given a survey after they had undergone intensive technology integration training to determine whether the training impacted their perceptions of technology integration in the social studies classroom (Zhao, 2007). Findings divided teachers into three categories of technology usage, with some overlap being evident. The first was efficiency, which involved teachers using technology to complete paperwork and obtain information (Zhao, 2007). This is readily evident in such activities as putting grades and attendance in STI, creation of worksheets for students, and processing lesson plans. The second view was enhancement, which involved teachers using technology to complement the textbook and meet the needs of their students. Teachers also tended to utilize technology to enhance the learning of their students through such strategies as collaboration, problem-solving, and critical thinking skills (Zhao, 2007). Using technology to enhance the students' learning capabilities and instilling skills in them they will

use for the rest of their lives is a benefit of technology integration. The third view was relaxation, which involved teachers using technology to stimulate the learning experience of their students. They saw students being motivated to complete their assignments because they were able to explore and discover the information on their own. This viewpoint is considered relaxation because of the break from lecturing through the usage of technology (Zhao, 2007).

Technology can provide a constructive and educational outlet for teaching content but allows both teacher and students to relax and learn in another manner. Technology provides the opportunity to engage in meaningful discussion and collaboration and sparks the ability to learn content on another, more connected and relevant level. It is compelling to look deeply at the perceptions of these teachers to determine their reasons for integrating technology and how they can be trained to make that technology integration more effective in positively impacting their students' learning. It is imperative to provide teachers benefits and barriers of technology integration to increase the chances teachers will implement the technology into the classrooms. If they are knowledgeable of what the integration of technology entails, they may be more willing to incorporate it into their instruction.

Benefits and Barriers of Technology Integration for Social Studies Instruction

Benefits of Technology Integration

Society is becoming so dependent and reliant on technology. In order to adequately prepare students to become productive citizens, teachers should empower their students with critical thinking skills through the integration of technology. Benefits of technology are not always easily seen by teachers, or they feel they do not possess the necessary training, time, and skills set to effectively integrate technology into their classroom. Technology integration also

involves the preconceptions teachers retain on their view of what is traditional methods of teaching. Research also has revealed that administrative support is vital in the classroom (Ranasinghe, 2009). Administrators could attend professional development seminars that concretely and contextually lay out benefits and basics of planning to integrate technology into the classroom. Teachers should realize the usage of technology in the classroom is to connect content to technology and enhance the students' ability to engage in higher-order thinking skills. Research has shown that technology has a benefit of improving academic achievement (Ranasinghe, 2009). Technology can cater to a wide array of ways students' learn and ensure their learning needs are being met. To ensure technology integration is done effectively, teachers should plan to incorporate the technology in ways that are meaningful and relevant to learning of content (Ranasinghe, 2009).

Benefits of Technology Integration in Social Studies

Technology can enhance and enrich many necessary skills for students such as critical thinking and problem-solving skills, ability to conduct research, and students' opportunities to work collaboratively with their fellow classmates. These are skills students will take with them to use for the rest of their lives. When teaching a group of students, teachers do not always reach all of the students where they are. Students do not have the same learning styles and teachers must acknowledge this in their preparation for instruction. It was suggested that the usage of technology could help teachers deliver content in a manner that touches each of the students' learning styles. Technology can be used to make the social studies curriculum more diversified. The main point to remember is that, just like any instructional strategy, if not implemented properly, educational goals may not be met. Many teachers go to workshops detailing and

describing the importance of differentiating instruction so more students are reached.

Technology integration could possibly be another avenue to help teachers with this task. It is not enough use technology in the classroom if it is not directly correlated to the goals and objectives of the social studies content and curriculum (Dils, 2000).

Researching technology integration in social studies can provide contextual examples of current instructional practices and can assist in the pedagogical decision-making process. Cited uses of technology in social studies classrooms included supplementing traditional teaching materials with such instructional strategies as online virtual field trips and *WebQuests* (White, 1997). In other words, more social studies teachers are integrating technology into their classrooms because textbook companies are providing easier access to online resources that supplement curriculum materials. These technological resources have already been researched, examined, evaluated, and recommended for use in the social studies classroom. Another reason for the spread of technology use is that many new teachers have been required to learn about the pedagogy of technology in their teacher education programs. Hence, these teachers bring a wealth of knowledge and potential resources to use in their classrooms.

With an increase of knowledge of the potential of technology integration, there are areas that can be illuminated for further detail and research. Technology has been noted to enrich the students' ability to create their own knowledge of social studies and employ constructivist learning. This learning helps them to become better at interpreting social studies and its connection to the "real world." Numerous researchers have backed the claim of technology's ability to increase constructivist learning. It was discovered that technology can help teachers incorporate and increase constructivist learning in their students (Rice & Wilson, 1999).

Technology could become quite influential in reforming education. NCSS has standards to detail

the need to engage students in their ability to critically think, make decisions, and solve problems. Along with these skills, NCSS also emphasizes the need for students to construct their own knowledge. It was believed that integration of technology into the social studies classroom could assist students in becoming independent learners discovering their own knowledge (Rice & Wilson, 1999). This is a significant observation about technology integration into the social studies classroom. The goal and objective of teaching social studies is to ensure teaching aligns with the standards set forth by NCSS. It has also been stated that technology should be considered as another method to deliver social studies instruction rather than something new combined with something that is old. This is an important concept to include with the potential benefits of technology integration into the social studies classroom. The integration of technology should be fluid and connected to the content in order for effective incorporation with learning strategies (Rice & Wilson, 1999).

Along with considering benefits of technology integration into the social studies classroom, it is also imperative to determine methods to meaningfully integrate technology. Dils (2000) commented on the ability of technology integration to enhance constructivist learning in the social studies classroom. He stated that constructivist learning seems to contradict what some social studies teachers see as their role in disseminating the material to their students. He also found that in order to help teachers transition from the traditional method of teaching social studies, teachers should be presented with contextual examples of how technology is already being integrated into the social studies classroom. Teachers also need to know the learning outcomes that accompany the instructional practices through incorporating technology. Knowing the learning experiences involved with their social studies students will assist social studies teachers in their decision of whether or not to integrate technology into the classroom and why it

is important and/or significant to do so (Dils, 2000). Although there have been numerous benefits of technology integration cited, it is also vital to educate teachers on the potential barriers they may face in attempting to incorporate technology in their classrooms.

Barriers of Technology Integration

There are many reasons technology is not being integrated into the classroom and there is an abundance of literature that provides suggestions, reasons, and recommendations to assist with this issue. This saturation of literature can sometimes lead to unfounded rationales for why teachers are not integrating technology into their classrooms. Without having a firm foundation based on research and facts, these unfounded rationales are nothing more than unnecessary chatter. It was believed that teachers and people involved with education talk and discuss about integrating technology but there are some fundamental questions to ask and answer if the talk and discussion are to lead to effective usage and integration of technology. Several commonly found barriers of integrating technology into the classroom were lack of time for training and mastery of the technology, lack of resources, and a lack of support, both in leadership and finances (Dias, 1999). Many of these barriers are commonly witnessed in many schools and content areas. Time is vitally important for the successful integration of technology into the classroom. Technology is too complex an implementation to be thrust upon teachers haphazardly without allowing them ample time to use the technology themselves, time to devise strategies and a plan to incorporate the technology into their classroom, and time to collaborate on strategies with their fellow teachers. Allowing for this incremental change could lead to a dynamic attempt and effort to integrate technology. Knowing the importance of training can lead school systems to set up convenient training that many of their teachers would be able to attend.

Resources are necessary for technology integration. It is difficult to integrate technology without technology. There needs to be provisions to ensure that necessary resources are available to teachers so they can integrate technology into their classrooms. These three barriers are only a few of the potential barriers involved in technology integration.

In a literature review of empirical studies, 123 barriers were identified. These barriers encompass six overarching categories: (1) lack of resources such as time, technology, and access to technology; (2) knowledge and skills to effectively integrate technology into the classroom; (3) lack of encouragement from administration to implement technology into the classroom; (4) impact of attitudes and beliefs teachers already possess toward the incorporation of technology; (5) pressure of preparing students to pass high-stakes tests; and (6) perceived incompatibility of technology with the subject area (Hew & Brush, 2007). Knowledge and acknowledgement of these barriers can help school systems make great strides toward helping their teachers effectively integrate technology into their classrooms.

Additional barriers that have been cited were planning to invest time, money, and effort into technology integration (Rogers, 2000). Being knowledgeable of barriers to technology integration can lead to making informed decisions of how to assist teachers in effectively integrating technology into their classroom. It is vital to demonstrate to them how the technology fits into their content area and how the usage of technology would be beneficial to them and their students. Two identified categories for barriers were internal, which includes attitudes and perceptions of teachers toward technology, and external, which includes availability and accessibility of technology and support of technical staff and staff training (Rogers, 2000). The trend of potential barriers seems to be perceptions of the teacher, availability and accessibility of the technology, and time. There are modifications that have to be made both personally and

professionally within the teacher and the school system. These barriers have the ability to limit the effectiveness of technology integration into these classrooms and need to be considered when deciding to accommodate for technology in the curriculum.

Other barriers that have been illustrated through the research literature are student-to-computer ratio, lack of financial resources to support technology, becoming more standards-driven, and poor performance on testing (White, 1997). In evaluating the implications of this report, it was established that there are not enough computers in the schools to encourage individual and, in some cases, collaborative utilization of technology. It was shown that access to the Internet was insufficient, both in the school and in the home. The cost-effectiveness of technology has not been tightly established because there are insufficient funds to replace and update computers and technological resources. Finally, the focus on testing has brought the usage of technology full circle to facilitating content knowledge through recall without much attention to critical and higher-order thinking skills. These observations are vital as they point to the potential areas of improvement in technology integration to increase the benefits to students and teachers (White, 1997). One thing that could prove useful is to demonstrate to teachers the potential benefits to them and their students in integrating technology.

Barriers of Technology Integration in Social Studies

There are secondary social studies teachers who are integrating technology into their classrooms while others are not. Many of these teachers have physical barriers to successful integration of technology that is not necessarily under their control. Some barriers are psychological due to their ingrained ideas about how social studies should be taught. In order to assist these secondary social studies teachers in effectively integrating technology into their

classrooms, there must be an understanding of the wide array of possible barriers facing them so they can be better equipped.

Research asks the question of why secondary social studies teachers are not utilizing technology in their classrooms. Three reasons were cited for why secondary teachers were not using technology: (1) lack of training, (2) lack of support, and (3) limited amount of access to technology (Ehman, 2002). The next portion of the research determined why social studies teachers were not integrating technology. Three possible explanations to this complex question were supplied. First was the observation that social studies teachers were too attached to the textbook and excluded possible alternatives (Ehman, 2002). This was evident in the way that a number of secondary social studies teachers approached their curriculum and materials. They followed the textbook without fail and did everything in their power to make it through the entire textbook. Teachers failed to realize there were many viable alternatives to the textbook that were created to supplement the curriculum materials. It is through training, preparation, and practice that a teacher moves to this realm of teaching. Second, there was a perception that some subjects were valued more than others and there was a lack of computer resources available to the teachers (Ehman, 2002). In many school systems, teachers are asked to place their content on the back burner to help their students prepare for assessments, in their respective states. This feeling of unworthiness could easily sway teachers away from doing all they can to reach their students by going beyond expectations. These observations have grand implications of how to reach secondary social studies teachers and express to them that their content has the value they perceive it to have; they must strive hard to instill these same beliefs and ideals into the minds of their students. Third, and finally, it was believed that social studies has many controversial issues attached and there were fears of students accessing inappropriate sites on the Internet when

conducting research (Ehman, 2002). This is an understandable concern that can be remedied through thorough training of teachers and students. Many school systems already have firewalls and blocks on various websites they deem may have inappropriate material on them, such as Yahoo and YouTube. There are many things that are on the Internet that are inappropriate for students' perusal but with thorough training, teachers and students will have a better understanding of the importance and dangers of veering off into information that is ill-fitting (Ehman, 2002).

One technological tool being used more often in the social studies classroom is the Internet. In a 2001 study, VanFossen sought to uncover, from the viewpoint of teachers, what they perceived as barriers to their usage of the Internet in their social studies classrooms. He mailed a survey to middle and high school social studies teachers in Indiana. In analyzing his data, some factors that were commonly noted were lack of training with the Internet and the computer, lack of Internet access in the classroom and building, and concern that students would go to inappropriate sites (VanFossen, 2001). These common barriers can lead to teachers being ineffective in their technology integration or not attempting to integrate technology into their classroom. This knowledge of teachers' perceptions of barriers they face in trying to integrate technology into their classroom can lead to professional development and training, which, as expressed by these social studies teachers in Indiana, was one of the biggest reasons they had not integrated technology.

Technology and Teacher Education

Many components go into preparing pre-service social studies teachers to enter their classrooms. They must be taught their content, methods to teach their content, and contextual

examples of how to use technology to convey the content to their students. Among several things that can possibly prepare pre-service teachers in their usage of technology are guidelines and standards, strategies for application, and recommendations for faculty members and accreditation agencies of teacher education programs.

Guidelines and Standards

In many states, including Alabama, teachers are supplied with the standards of social studies. They are provided with a set of guidelines to direct them on the path of necessary information to convey to students during a particular year. Providing guidelines of how to prepare pre-service teachers is no different. It is important to acknowledge beforehand what pre-service teachers need to know in order to be effective teachers in the future. Guidelines provided in the research of how to prepare pre-service social studies teachers in the utilization of technology include, but are not limited to going beyond learning that can be done without technology; providing a contextual framework for introducing technology; studying the relationships between technology, social studies content, and society; developing the skills set to become productive and participatory citizens; and conducting and evaluating research relative to social studies and technology implementation (Mason, Berson, Diem, Hicks, Lee, & Dralle 2000). The usage of technology in the classroom presents opportunities that are not afforded in the traditional, teacher- and textbook-centered classroom. In order for pre-service social studies teachers to tap into the opportunities that technology can offer to their students, they must have training with technology given in context with how to incorporate it into their content area. When faculty members of teacher education programs present information on using technology

in this manner, there is a greater probability of their pre-service teachers being better prepared and equipped to use the technology effectively in their classrooms (Mason et al., 2000).

Bennett (2001) reported on the basic components that ISTE set aside for preparation of teachers to use technology. Obtaining the standards from the organization designed to assist in technology in education better prepares and equips teachers with the tools they need to effectively incorporate technology. Being knowledgeable of these components provides a blueprint of how to ensure an increase in the probability that the technology used in the classroom will be more conducive to the students' learning and will enrich their learning experience. It was noted that technology usage should be provided throughout the teacher education program, should be given in the context of the content area, and students should be given the opportunity to witness and participate in a technology-enriched learning environment during their program (Bennett, 2001). This suggests that faculty members should ensure that technology is used throughout the teacher education program, not just in one computer course. Pre-service teachers also should be able to observe how their faculty members use technology effectively in the classroom to enhance their learning experience. This provides a contextual and tangible example for pre-service social studies teachers to draw from when they obtain their own classroom.

When pre-service teachers are able to view and review the way their teacher educators use technology in instruction, they can learn how to implement technology into their classrooms. This will not be an effective process if they are only able to observe this activity once in their teacher preparation program. Pre-service social studies teachers need to visualize this activity throughout the entire program to ensure the highest quality of preparedness. Another corresponding view suggested that integration of technology should span the entire program and

there should be plans implemented to provide pre-service teachers with models of how to integrate technology (Willis, 2001). This insinuates that in order for pre-service teachers to be fully prepared, they need to have a progression of contextual experiences with technology throughout their entire teacher education program. These experiences, modeling, and demonstrating of their faculty members will better equip pre-service social studies teachers with many of the tools necessary to effectively integrate technology into their classrooms.

Strategies for Application

When demonstrating how to use technology in the classroom, faculty members should provide various strategies that pre-service teachers can employ in their future classrooms. This shows students the attention to detail their teachers take in incorporating technology into instruction and provides them with valuable practice on how to implement some of the same strategies into their classrooms. Lee (2008) furnished some strategies and guidelines in achieving TPACK in the social studies classroom. He included such activities as using digital resources, developing literacy skills, producing presentation via the Web, collaborating through usage of the Internet, and social networks (Lee, 2008). It is important for pre-service teachers to be given the opportunity to engage in these types of activities during the realm of their teacher preparation. It gives them contextual and meaningful experience that can easily be applicable to students in their future classrooms.

Another subset of strategies to better prepare pre-service social studies teachers in using technology in their classrooms are suggested activities that ranged from discussing real cases of social studies teachers integrating technology into their classrooms, creating innovative ways to incorporate technology in the classroom and showcasing technological tools in their teacher

education program, and implementing technological tools in real classroom settings (Brush & Saye, 2009). This multifaceted array of strategies provides teacher education programs with a possible set of scenarios they can incorporate into the entire program. Allowing pre-service social studies teachers the chance to peer at how real, in-service social studies teachers are using technology in their classrooms and the opportunity to critique and discuss the strategies gives them a better handle of contextual methods of integrating technology. Also allowing pre-service teachers the opportunity to implement their own technological instructional tool provides them with real experience and can lead to feedback on how utilizing that particular technology in their future social studies classroom could pan out. In view of the possible strategies for use of technology in teacher education programs, there also have arisen a number of recommendations for teacher education and accreditation institutions to improve the overall success of the program.

Recommendations

The Task Force on Technology and Teacher Education for the National Council for Accreditation of Teacher Education (NCATE, 1997) met to collaborate on recommendations they could provide to NCATE in order to assist teacher education programs under its auspices. The Task Force recommended that NCATE require their institutions to have a plan for using technology that reinforces teacher education, encourages their institutions to use technology to carry out their responsibilities, and provides examples of best practices in using technology in teacher education programs (NCATE, 1997). Although these recommendations were made to NCATE in 1997, there is still a portion of NCATE accredited teacher education institutions that are not complying with these recommendations. As pre-service teachers go through these teacher

education programs, they should be provided with all of the equipment and tools they will need to be effective in their classroom. Teacher education programs should have a mission and plan in place on how to utilize and implement technology into the entire curriculum and show pre-service teachers how to use technology for their future classrooms.

Providing this modeling of using technology provides pre-service teachers with a wealth of knowledge to be implemented later in their classrooms. Researchers and educators have tried to seek methods of preparing their pre-service teachers to the best of their ability. Their goal, vision, and mission is to send out teachers who will be effective in their classrooms, will connect with their students in meaningful ways, and will communicate the subject matter in a way that is useful and relevant to their students. Moursund and Bielefeldt (1999) sought to determine how to increase the preparedness of pre-service teachers as they enter their classrooms. They created a 32-item survey they distributed to deans and faculty of schools, colleges, and departments of education (SCDEs). After they analyzed the results from the data, the researchers came up with recommendations for these teacher education institutions. They suggested that technology training should be incorporated in all of the teacher education courses and not just a standalone computer class. Pre-service teachers need more opportunities to use technology during their field experiences while they have supervision and faculty should model how to effectively integrate technology into the classroom. Pre-service teachers also should be provided with examples of how technology is being effectively implemented in their content area (Moursund & Bielefeldt, 1999).

The trend in the literature indicates that integration of technology should be accomplished throughout the entire teacher education program, pre-service teachers need to see the modeling of technology usage by their professors and be able to implement this technology while in the

teacher education program, and teacher educators and pre-service teachers need to be given examples of how technology is already being effectively integrated for training purposes. Modification of teacher education programs to accommodate for some of these recommendations could lead to pre-service teachers being better prepared to integrate technology into their classrooms.

In a study conducted by Owens (1999), pre-service teachers were provided with surveys to give feedback on how they felt their teacher education faculty could better assist them. He found that social studies professors should encourage pre-service teachers to look at the quality of technology resources, set standards of what pre-service teachers should look for in technology, teach pre-service teachers to balance fun and research with technological tools, and be patient with beginners (Owens, 1999). These recommendations directly correlate with many of the suggestions already being cited in the literature. Social studies professors should be a model of how to utilize technology in a classroom. They also must not make assumptions that all pre-service teachers are on the same technological competency level. Professors should assess the prior knowledge of pre-service teachers on their ability to use technology to ensure the technology integration instruction will be easily comprehended and applicable to all pre-service teachers.

In order to have effective social studies teachers in the classroom, there must be ample and contextual preparation on the part of teacher educators to better equip their pre-service social studies teachers. It was suggested that in preparing pre-service social studies teachers, they should be afforded the opportunity to be more proactive in their teacher training program rather than just reacting to events as they happen. It was also determined that allowing these pre-service teachers the opportunity to participate in the decisions being made in their program, rather than

just following pre-established guidelines and going through the motions, would fare better in preparing them to become effective teachers. Pre-service teachers also need to be given the chance to critically analyze the curriculum they study and will teach, the instruction they receive and will give, and technology's place in the whole realm of education (Walker & White, 2000). All of these activities can aid in the preparation of pre-service social studies teachers as they learn their role as teachers and try to determine how they will personally fit into the big picture and add positive value to the educational system.

In order for social studies teacher educators to teach their pre-service teachers how to effectively implement technology in their instruction, they should exude they have the zeal for integrating technology in their instructional strategies. In a longitudinal study that provided surveys via the Internet to social studies teacher educators, several implications and recommendations were listed (Friedman, Bolick, Berson, & Porfeli, 2009). The demographic make-up of the faculty surveyed were White faculty members who had taught between 3 to 5 years. In the discussion of the results, it was determined that when social studies teacher educators were confident in their knowledge of the ISTE National Educational Technology Standards (NETS), they were more apt to incorporate those technological strategies and allow their pre-service teachers the opportunity to actively engage with teaching social studies content through technology. If faculty members were unfamiliar with the NETS, they tended only to use technology in their classroom in general ways (Friedman et al., 2009). This implies that competence in the NETS has a large impact on the ways social studies teacher educators will implement technology into their classroom. This also impacts the experiences of their pre-service teachers on their ability to be actively involved with how to use technology for instructional purposes.

There also are recommendations for teacher educators who prepare middle school pre-service teachers. It is essential for these teacher educators to be knowledgeable of how middle school students develop and what their needs are; to be knowledgeable of middle school philosophy and how this relates to the instructional strategies that should be implemented; to be knowledgeable of middle school curriculum and what are the expectations for middle school teachers; have a strong foundation of the content knowledge their pre-service teachers are required to obtain; be knowledgeable of teaching middle school pre-service teachers how to plan, teach, and assess their students and provide instructional strategies for incorporation; and ensure their middle school pre-service teachers are afforded with plentiful and early experience in the field (NMSA, 2006). All of these recommendations are pivotal in the manner in which middle school pre-service teachers are prepared for instruction. Following these guidelines can make it more probable that pre-service teachers will be more adequately prepared to teach their students and will be more confident in their teaching abilities.

Teachers' perceptions are often deeply ingrained prior to their in-service teaching. For this reason, experiences of pre-service teachers also are vital. Sometimes, the beliefs and attitudes that pre-service teachers hold on to are directly related to the beliefs and attitudes of their teacher educators. The same reigns true in the area of technology integration. Perceptions pre-service teachers possess can directly influence and impact how much and what types of technology they will integrate into their future classrooms. Examining beliefs of pre-service teachers is important to understanding what types of attitudes they will have in their classroom. The teacher educators' role in molding and shaping pre-service teachers becomes a pivotal concept to determine whether there are any adverse effects being imposed on pre-service teachers. If teacher educators do not model effective ways to teach integrating technology or do

not exhibit positive feelings toward its integration, this negative perspective could cause pre-service teachers to have the same perceptions in their teaching. In a survey research study, pre-service teachers and teacher educators were provided with surveys to measure their beliefs and attitudes toward technology integration. In discussing the results, beliefs of teacher educators had an impact on the beliefs of the pre-service teachers. For example, if the teacher educator held the belief that not all students can learn, this belief could become ingrained in their pre-service teachers. For this reason, teacher educators should be mindful of the beliefs they possess and be careful not to impose those beliefs on their pre-service teachers. As it related to attitudes toward technology integration, the amount of technology used in the program by teacher educators could impact the pre-service teachers' attitudes. Pre-service teachers should be exposed to meaningful and effective ways of incorporating technology into their classrooms and understand the rationale for its implementation (Bai & Ertmer, 2008).

Pre-service teachers enter their teacher education programs with preconceptions and beliefs of what teaching is. They look at instruction as a time for teachers to disseminate information to students for memorization and, if not altered early, will take these beliefs into their future classrooms. Pre-service teachers also do not consider the ways technology integration can be useful in the classroom. Teacher educators have to be careful not to reinforce any negative perceptions pre-service teachers possess. Teacher educators have the awesome task of readjusting beliefs of pre-service teachers so they can be effective in the classroom. Three areas teacher educators can focus on when developing the teaching beliefs of their pre-service teachers are experiences, reflection, and support. Pre-service teachers should be provided with opportunities to observe the appropriate manner to integrate technology into the classroom. These observations should be witnessed throughout the entire teacher education program. . They

also should be given the opportunity to observe how other teachers are effectively integrating technology. Contextual experiences can positively impact pre-service teachers' beliefs about technology use in the classroom. Pre-service teachers also should be taught how to reflect on their teaching episodes. Sample activities for reflection could be writing in a journal, a weblog, or discussing their experience with peers. Reflecting on their teaching experience can help pre-service teachers realize their strengths and areas for improvement. They also can learn how to adapt their lesson for the next teaching episode. Reflection is an important exercise for all teachers to engage in. Pre-service teachers also should be provided with support. Changing or readjusting belief patterns can be difficult and support from teacher educators and fellow peers could be beneficial. Support can include giving pre-service teachers materials to embrace new ways of teaching, and involvement in learning communities that encourage collaboration on various methods of teaching and assessing students (Ma, Lai, Williams, & Prejean, 2008).

This literature review examined research on middle school culture, curriculum in the middle schools, status of technology in the schools, TPACK, teachers' perceptions of technology integration, benefits of technology integration, barriers to technology integration, and teacher education. All of these pertinent areas of research were instrumental to understanding the perceptions of the teachers in this study. This literature provides clarity to topics that affect these teachers daily and how these topics impact the way they instruct their students and the instructional learning strategies they decide to use.

CHAPTER 3

METHODOLOGY

This research study's methodology was selected by considering the most appropriate approaches to answer the research questions. After careful consideration, qualitative research was deemed most appropriate. Because this study examines perceptions of eighth grade world history teachers, the qualitative method provides the researcher with the ability to delve deep into participants' thoughts, beliefs, and values. Under the auspices of qualitative research, the researcher chose focus group sessions and interviews for the data collection method. The non-threatening nature of focus groups and interviews provides participants with more comfort for being open and honest about their perceptions.

Qualitative Approach

Prior to deciding the research approach and data collection method, researchers should generate research questions to ensure selection of the appropriate method. Qualitative research allows researchers the ability to generate theories from data. Conducting qualitative research permits researchers more leverage in examining perceptions of participants (Corbin & Strauss, 2008; Creswell, 2007).

As mentioned in Chapters 1 and 2, analysis of teachers' perceptions and its impact on effective technology integration is integral in teachers' growth and development (Whitworth & Berson, 2003). By answering the following research questions, this study examined how perceptions of eighth grade world history teachers impact their pedagogical decisions in regard

to selecting proper technology instructional strategies by answering the following research questions:

1. How are eighth grade social studies teachers in West Alabama using technology to enhance teaching of the world history curriculum?

2. What are teachers' perceptions of how their use of technology in the social studies classroom impacts student learning and engagement?

3. What barriers do social studies teachers face when integrating technology in their classrooms?

4. What support, including formal and informal training, do social studies teachers have when integrating technology in their classrooms?

Participants and Setting

Participants for this study were selected via purposeful sampling. In purposeful sampling, researchers decide who, what, and how many participants will be selected (Creswell, 2007). Five eighth grade world history teachers from West Alabama were selected to express their perceptions of technology's impact on students' learning of world history. Hill County (pseudonym) was selected for inclusion in this study due to its diversity. It is one of the largest counties in Alabama in regard to area and population. Hill County is predominately Caucasian, but also has a significant representation of African Americans. There is also a smaller representation of Native American, Asian, and Hispanic. City populations in Hill County range from approximately 200 to nearly 80,000. This diverse population has possible implications for the demographic composition of neighboring counties in West Alabama. This diversity also provides more opportunity for richer data collection. Middle schools in Hill County were

selected from rural, urban, and suburban designations to add diversity to participants’ responses. Bradley Middle School (pseudonym) with two eighth grade world history teachers is rural, Evans Middle School (pseudonym) with two eighth grade world history teachers is urban, and Nancy Middle School (pseudonym) with one eighth grade world history teacher is suburban. Since this study was qualitative and had a small sample size, results cannot be generalized to the general population. However, the findings can provide relevant information of the effectiveness of technology integration.

Table 1 provides details on Hill County and the three selected middle schools’ population descriptors and the percentage of students eligible for free and reduced price meals. The percentage of students eligible for free and reduced price meals is an indicator of a school’s poverty level. The National School Lunch Program (NSLP), a federally funded program that provides nutritional meals at free or reduced prices, states that students are eligible for free meals when the family income is below 130% of the poverty level. Currently, a family of four with a family income of \$28,665 is considered to be at 130% of the poverty level. Students are eligible for reduced price meals when the family income is between 130 and 185% of the poverty level. A family of four with a family income of \$40,793 is considered to be at 185% of the poverty level. Students with a family income over 185% of the poverty level pay full price for meals (USDA, 2009).

Table 1

County and School Demographic Information

School Name	Rural or Urban	Students eligible for free or reduced price meals
Hill County	Urban	45.2%
Bradley Middle School	Rural	49.3%
Evans Middle School	Urban	32.6%
Nancy Middle School	Suburban	35.6%

The researcher requested permission to conduct research with the selected schools in Hill County and was promptly approved. The IRB approval letter, description of research study, and approved consent letter were emailed to the Deputy Superintendent of Hill County who, upon approval, forwarded these research materials to the nine middle school principals. The researcher emailed principals requesting permission to meet and discuss the study and the possible participation of their eighth grade world history teachers. After meeting with principals and teachers, the researcher selected five of the eight eighth grade world history teachers who consented to participate in the study. The names of the five teachers have been substituted with pseudonyms to protect their identity: Elijah, Daniel, Caleb, Darlene, and Trevor. Daniel and Caleb teach at Evans Middle School, Darlene and Trevor teach at Bradley Middle School, and Elijah teaches at Nancy Middle School. Elijah has a Master's degree and has been teaching for a total of 22 years. His school has 32.5% of the students on free or reduced lunch, and there are around 7 students per computer. Daniel has a Master's degree in Special Education/Gifted and Talented and has been teaching for a total of 18 years. His school has 31.8% of the students on free or reduced lunch, and there are around 5 students per computer. Caleb has a Master's degree in Secondary Education/Social Studies and has been teaching a total of 11 years. Darlene has a Master's of Education in Secondary Education/History and has been teaching a total of 8 years. Her school has 45.3% of the students on free or reduced lunch, and there are around 6 students per computer. Trevor has a Master's of Education in History and has been teaching for a total of 12 years.

Table 2

Teacher Demographics

Teacher's name	School name	Teacher's degree level	Years teaching	Free/reduced lunch percentage	Technology
Elijah	Nancy Middle School	Master's Degree	22 years	32.5%	7 students per computer
Daniel	Evans Middle School	Master's Degree in Special Education/Gifted and Talented	18 years	31.8%	5 students per computer
Caleb	Evans Middle School	Master's Degree in Secondary Education/Social Studies	11 years	31.8%	5 students per computer
Darlene	Bradley Middle School	Master's Degree in Secondary Education/History	8 years	45.3%	6 students per computer
Trevor	Bradley Middle School	Masters of Education Degree in History	12 years	45.3%	6 students per computer

Data Sources and Analysis

Data collection methods selected for this study were focus groups and face-to-face interviews. Since the research questions were designed to examine teachers' perceptions, focus groups and interviews would provide the richest, most in-depth data for analysis. Focus groups provided participants with the opportunity to express their perceptions more deeply and collaborate with peers when contemplating responses to prompts (Fitzpatrick, Sanders, & Worthen, 2004). Interviews allow participants to fully elaborate responses to questions in a non-threatening and inviting manner. The open-ended questions permit participants to concentrate and think deeply about their answers (Corbin & Strauss, 2008; Creswell, 2007).

Pros and Cons of Focus Groups

Focus groups are beneficial to use when there is a power gap between participants and decision makers, a need to delve into complex behaviors and perceptions, a desire to examine areas of consensus among participants, and a necessity to provide a safe and non-threatening atmosphere for communication and collaboration (Krueger & Casey, 2009; Morgan & Krueger, 1993). Focus groups also permit more flexibility in data collection, are relatively inexpensive to conduct, provide quick results, and allow for an increase in sample size without extra expenditure of time (Krueger, 1994; Krueger & Casey, 2009). Administration of focus group sessions can become problematic due to the difficulty for researchers to retain full control. The data obtained from focus groups are more difficult and tedious to analyze, and it is harder to gather participants together. Researchers should take care to moderate the proceedings of focus groups to ensure all participants feel comfortable sharing perceptions, are truthful, and do not feel dominated by other participants. If these situations exist, results can become negatively skewed and less useful to the study (Krueger, 1994; Krueger & Casey, 2009). The researcher attempted to prevent these adverse effects by providing participants with pseudonyms for identity protection and expressing the importance and appreciate for teachers' participation.

Pros and Cons of Interviews

Interviews permit researchers to delve deeply into participants' thoughts and beliefs. Researchers should generate questions that address a wide array of concerns about a problem or topic and provide participants with the freedom to openly express their perceptions. When participants are encouraged to think and reflect on responses, they tend to provide a wide range of ideas, suggestions, insights, and recommendations that give richness to the data (Corbin &

Strauss, 2008; Creswell, 2007; Lazar, Feng, & Hochheiser, 2010). However, interviews involve extended amounts of time with each participant, which limits interview studies to include small numbers of participants. Interviews also present the challenge of managing discussions that get off focus and become limitless. This additional information can be useful, but oftentimes becomes distracting to the interviewer and interviewee. Interview analysis presents a challenge due to the extensive amount of time dedicated to transcription and separation of useful information from irrelevant information. A threat to reliability can occur during interviews because participants are merely attempting to recall perceptions and beliefs of a relative experience, but this is one step away from the actual occurrence. To avoid these potential disconnects, researchers should combine interviews with other data collection methods to lend more credence to the results (Creswell, 2007; Lazar et al., 2010).

Procedure

The researcher's intention was to conduct three focus group sessions: two online, via www.nicenet.org, and one face-to-face at a central location. The NiceNet.org interface allows for private threaded discussions where participants create usernames and passwords after being provided with a network key to join the Internet Classroom Assistant (ICA). The researcher placed questions on the ICA, which directly correlated with research literature, and the participants answered and collaborated, to some extent, with their peer eighth grade social studies teachers. There were only a couple of instances when teachers "spoke" to each other by referring to similar experiences. The two online focus groups received 70 to 80% participation. Table 3 illustrates more in-depth information of the focus group sessions, questions, number of participant responses, and responding participants' names.

The first online focus group session addressed perceptions of the role of an eighth grade social studies teacher, level of technology use, and provisions for training and/or support. Four teachers responded to the role of an eighth grade social studies teacher question, four teachers responded to the level of technology use question, and four teachers responded to the training question. During the second online focus group session, status of technology in the participants' schools, strategies utilized by participants, and barriers faced were addressed. Four teachers responded to the status of technology question, three teachers responded to the strategies question, and four teachers responded to the barriers question.

As the researcher started scheduling times and locations for the face-to-face focus group session, it became difficult to gather all of the teachers together. One face-to-face focus group session was scheduled but only one teacher remained available. The other participants had extenuating circumstances and were unable to attend. Due to the difficulty in scheduling a face-to-face focus group session, the researcher changed the face-to-face focus group session into a third online focus group session. The third online focus group session dealt with teachers' beliefs of the benefits of technology integration, ability to utilize the principles of TPCK, making social studies meaningful through technology integration, and potential suggestions for teacher education programs. Two teachers responded to the benefits question, none of the teachers responded to the TPCK question, three teachers responded to the meaningful learning question, and three teachers responded to the teacher education question.

Table 3

Response Rates for Focus Group Sessions

Focus group session	Focus group question	Number of teachers' responding	Names of teachers
Focus Group 1	What do you see as your role as an eighth grade social studies teacher?	4	Darlene, Daniel, Trevor, and Caleb
Focus Group 1	What is your level of using technology in your classroom?	4	Darlene, Daniel, Trevor, and Caleb
Focus Group 1	What type of training do you have in integrating technology into the social studies classroom?	4	Darlene, Daniel, Trevor, and Caleb
Focus Group 2	What is the status of technology in your school?	4	Darlene, Daniel, Trevor, and Caleb
Focus Group 2	What types of strategies, including technology strategies, do you employ to enhance your students' learning?	3	Darlene, Daniel, and Caleb
Focus Group 2	What are some of the barriers you face in attempting to integrate technology into your social studies instruction?	4	Darlene, Daniel, Trevor, and Caleb
Focus Group 3	What are your beliefs of the benefits of using technology in your classroom?	2	Daniel and Caleb
Focus Group 3	How do you mesh your content, pedagogical, and technological knowledge in teaching your students?	0	N/A
Focus Group 3	How can you make learning social studies meaningful through the integration of technology?	3	Daniel, Caleb, and Trevor
Focus Group 3	How can teacher education programs better equip their pre-service teachers for integrating technology into the social studies classroom?	3	Daniel, Trevor, and Caleb

After analyzing participants' responses, the researcher conducted individual face-to-face follow-up interviews at the participants' schools during their 50-minute planning period. This was the researcher's attempt to ensure the accuracy of participants' answers and provide an opportunity for further elaboration. To analyze the data from the online focus group sessions, the

researcher retrieved the answers from the discussion board and conducted three levels of coding: open, axial, and selective. In the open coding phase, the researcher read through all of the transcripts and found themes that were recurring throughout the documents. The researcher listed commonalities among teachers and developed theme titles to explain these occurrences. In the axial coding phase, the researcher selected one of the themes from the open coding phase, also known as the core phenomenon, and re-read the transcripts to categorize themes for the core phenomenon. For instance, the researcher found barriers such as lack of funding and resources to be a recurring theme throughout focus group sessions and interviews. She revisited the online focus group postings and transcripts from interviews to specify examples referred to by the teachers. During the selective coding phase, the researcher hypothesized rationales for teachers' responses and perceptions (Creswell, 2007). This selective coding phase assisted the researcher in the discussion of potential implications from research data. The researcher also obtained assistance from a colleague to fulfill the role of a coding partner. The researcher emailed the coding partner a copy of all of transcripts from the online focus group sessions. The researcher and coding partner reviewed the transcripts, individually, searching for themes and met to discuss, compare, and contrast the themes that emerged. This collaboration led to a deeper understanding of the emergent themes and provided specific details and examples to support each theme. Kvale and Brinkmann (2009) described interview research as, "attempts to understand the world from the subjects' point of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanations" (p. 1). Table 4 exemplifies the connection between research questions and focus group questions and specifies when each question was presented.

Table 4

Research Questions Answered During Focus Group Sessions

Research question	Focus group question	Focus group session
How are eighth grade social studies teachers in West Alabama using technology to enhance teaching of the world history curriculum?;	What types of strategies do you employ to enhance your students learning? Technological strategies? What is your level of using technology in your classroom?	First and Second Online Focus Group Sessions
What are teachers' perceptions of how their use of technology in the social studies classroom impacts student learning and engagement?	What do you see as your role as an eighth grade social studies teacher? What are your beliefs of the benefits of using technology in your classroom? How can you make learning social studies meaningful through the integration of technology? How do you mesh your content, pedagogical, and technological knowledge in teaching your students?	First and Third Online Focus Group Sessions
What barriers do social studies teachers face when integrating technology in their classrooms?	What are some of the barriers that you face in attempting to integrate technology? What is the status of technology in your school?	Second Online Focus Group Session
What support, including formal and informal training, do social studies teachers have when integrating technology in their classrooms?	What type of training and/or support do you have in integrating technology into the social studies classroom? How can teacher education programs better equip their pre-service teachers for integrating technology into the social studies classroom?	First and Third Online Focus Group Sessions

Positionality of the Researcher

The researcher is close to this study because she taught eighth grade social studies for 2 years in Alabama. She witnessed how high-stakes testing in the state of Alabama can have an adverse impact on the teachers' ability to teach social studies effectively. While teaching social studies during the spring semester, the researcher had to relegate her duties of social studies in

order to prepare students for test preparation in mathematics and reading. This test preparation was designed to increase students' chances of performing well on the Alabama Reading and Mathematics Test (ARMT) and the Scholastic Achievement Test (SAT10). This preparation occurred 4 to 6 weeks prior to test administration, and test administration lasted 2 weeks. Conceivably, this presented 1.5 to 2 months when students were devoid of learning from the other content areas. In light of this, the researcher attempted to separate her personal experiences from the conducting of this study by generating focus group questions informed by the research literature, conducting three levels of coding for data analysis, and retaining a coding partner for inter-rater reliability.

CHAPTER 4

RESULTS

The purpose of this research study was to examine the perceptions of eighth grade social studies teachers on the impact of technology on their students' learning of World History. The purpose of this chapter is to present and discuss results of the study. By way of the purposeful sampling method, the researcher selected five eighth grade social studies teachers: Darlene, Daniel, Caleb, Trevor, and Elijah (pseudonyms) as participants in this study. Purposeful sampling was deemed the best method for selecting study participants because the researcher was seeking feedback from a distinct target audience: eighth grade history teachers from a mid-sized city in the Southeastern United States. The researcher conducted three focus group sessions via an internet classroom assistant discussion board (www.nicenet.org) as discussed in Chapter 3. Focus group questions were generated to correlate with the gaps in the research literature and to allow participants to provide optimally detailed responses to prompts. Focus group sessions were followed by individual face-to-face interviews. Analysis of the focus group responses informed and guided the development of the researcher's follow-up interview questions. Follow-up interviews allowed teachers to elaborate on their responses and ensure accurate interpretation. As a result of the researcher's analysis of transcripts of focus group sessions and face-to-face interviews, four major themes emerged across the four research questions: (1) participants' perceptions of the roles and responsibilities of an eighth grade world history teacher, (2) participants' perceptions of the components of meaningful learning,

(3) participants' perceptions of the importance of hands-on learning, and (4) participants' perceptions of barriers to technology integration.

Each participant reported feeling it was her/his responsibility to teach students how to think critically about the world and find relevance in world history topics. It was clear this responsibility came largely from a common assumption that eighth grade students are at a critical crossroads in their academic development. At this point in their schooling, according to participants, students' interest in history may be piqued or may be squashed. In terms of meaningful learning, particularly in the social studies classroom, participants identified various attributes of success. All participants agreed that in order for learning to be meaningful for students, it must be relevant and interesting, it must involve a variety of higher order thinking skills, and it must be connected to their personal lives and past experiences. In keeping with the assertion of the National Middle School Association (2009), participants also identified various hands-on learning strategies as critical components of effective and enriched teaching and learning in the social studies classroom. By engaging students in hands-on activities, teachers enrich the learning environment for students and challenge their preconceptions that history is "boring" or "irrelevant." Hands-on activities, according to participants, also encourage and enable students to construct their own knowledge about content. Despite the numerous attributes of effective learning, teacher participants also identified and discussed perceived barriers to technology integration in the social studies classroom. Among the observed barriers were a general lack of funding for technology, outdated or inadequate resources, inadequate or nonexistent support systems, and low teacher confidence in technology knowledge or skills. These barriers, according to the participants, may obstruct teachers' use of technology, and even discourage them from seeking the help necessary to become more proficient in its use.

These themes emerged during focus group sessions and participants were encouraged to elaborate on their perceptions during the face-to-face interviews. As discussed in Chapters 1, this study was based on four overarching research questions: (1) How are eighth grade social studies teachers in West Alabama using technology to enhance teaching of the world history curriculum?, (2) What are teachers' perceptions of how their use of technology in the social studies classroom impacts student learning and engagement?, (3) What barriers do social studies teachers face when integrating technology in their classrooms?, and (4) What support, including formal and informal training, do social studies teachers have when integrating technology in their classrooms?

Research Questions

Research Question 1

How are eighth grade social studies teachers in West Alabama using technology to enhance teaching of the world history curriculum?

The researcher asked participants two questions during the second online focus group session: (1) "What types of strategies do you employ to enhance your students' learning?", and (2) "What types of technology strategies do you employ to enhance your students' learning?" The researcher sought to determine what impacts the incorporation of technology into the social studies classroom has on the ways in which students learn and retain world history content.

The teacher participants reported deep interest and effort in making learning episodes hands-on and relevant for students, with and without the use of technology. Darlene gave the example of allowing her students to listen to culturally and regionally relevant folk music while they study Mesoamerican history and cultures. Darlene also reported having students construct

Faberge eggs during her unit on Russia, and castles during her unit on the Middle Ages. “If students can figure out how they learn best, they will achieve more overall.” When asked to elaborate on her use of technological strategies in her teaching, Darlene responded that she takes her classes into the computer lab regularly to allow them time to conduct online research. When students were working on their castle construction project, for example, they used the Internet to research castle history, design, and construction practices:

The students do a lot of research on the Internet. We have a great new computer lab and when we are studying a topic like when we did the castles, they got to go into the computer lab and do some research on a castle that really existed during the Middle Ages and they love that kind of research.

Darlene also reported using blogging as an Internet strategy during a time when she traveled overseas:

When I go on some of the trips overseas, like when I went to Greece last summer, I blogged over the summer to my students and they were able to travel vicariously and I guess ask questions about all of the historical sites.

Another teacher participant, Daniel, suggested his teaching approach was similar to Darlene’s because during some part of his lesson he allowed students to use the computer and the Internet to research and develop personal interest projects.

Very similar in my approach. Because I dedicate a portion of my class to personal interest projects that the students select and complete we hit a variety of learning styles. Students complete a variety of products using a variety of products using a variety of materials and media. I try to use primary sources, digital simulations, and a variety of creative computer programs that allow the students to generate a project after researching the material.

Daniel also reported using technology in the forms of digital primary sources and digital simulations. He gave the example of allowing students to use Pivot animation software to recreate the launch of the Sputnik module. In the follow-up interview, Daniel elaborated on the Pivot animation software.

Yes, it's just an animation program done online and they can download the software and it's real basic. They make lines like stick figures and you can put wording up there and get the characters to move them on the screen and basically make a little cartoon and some students just wanted to recreate some different events in world history and that was on of the ones that they chose. It was between that and the Lincoln assassination so I told them to do the one a little less violent.

Teacher participant Caleb added that when teachers are deciding what instructional strategies to use with students to teach certain content, they should accommodate for students' different learning styles. "Varying your strategies is the key. All students learn in different ways. We must differentiate instruction. The use of anticipation guides, mapping, visuals, talk and turn etc. . . . All help in student learning." Caleb explained that he facilitates his students' use of *WebQuest* and *PowerPoint* applications when designing content-based brochures. He reported his students respond well to these strategies because they find them "creative and fun to use."

During his follow-up interview, teacher participant Elijah stated that he tries to use individualized instruction when teaching his students with technology.

Of course, individualized instruction. Research, as far as technology is concerned. I like to let the students develop their own technology. I do a lot of group work. . . . They do mostly *PowerPoint* for their research assignment and they would present them to the class. They usually make an outline so that they can focus on what to present to the class.

Elijah went on to describe how he has measured dramatic increases in student participation since he introduced *PowerPoint* as a presentation option for students. "Before, students might complete their presentations, and they might not. But since I allow them to use *PowerPoint*, most do it because it's fun and they can add their own personalities in there."

In his follow-up interview, Trevor describes his "Roman Newspaper" activity as an example of how he infuses his lessons with technology. The "Roman Newspaper" is a first-person, period factual account of life in Ancient Rome wherein students take on identities of Roman citizens and report their observations.

Well one of the things we do, like when we talked about the Romans, we created a Roman newspaper and the kids were in groups and we go to the library usually because they use books also and they create a newspaper as if they were living during the Roman times and we use the Internet to get pictures and a lot of them will create their newspaper by using *Microsoft Publisher*, which it has a really good newspaper . . . thing in there, you know, and they use that to make their newspaper look like a real newspaper.

Trevor also reported that he often sees his students delving deeper into research when conducting it on their own, and as a result, their findings often reveal facts and knowledge that go beyond what is taught during his lessons. Trevor felt that the “Roman Newspaper” activity has been a success in his attempt to get students more engaged and thinking critically about Ancient Rome.

The researcher also asked participants to respond to the following question: “What is your level of using technology in your classroom?” To this, Darlene responded that she uses technology in a number of ways. Specifically,

Students use the computer lab for research, and they learn to create their own *PowerPoint* or online research projects. We also use technology by checking the school website, which is so important for keeping students, parents, and teachers on the same page with issues that arise throughout the year. Most lessons that are lecture-based include a laptop/LCD projector.

In further discussion during the follow-up interview, Darlene described one of the recent research projects her students conducted on China. Students were studying about the educational system in China, and were asked to read a diary from a young schoolgirl who described some of her difficulties in going to school and getting an education. After reading the diary, students remarked about how the girl’s experience was not represented by the textual description of China or Chinese education. Darlene decided to take her students to the computer lab to research an ethnic minority group in China and describe their educational experiences. As a result, students were able to construct knowledge about the subject matter that was not only engaging, but that had initiated from their genuine interest in the topic.

Darlene also reported that students use technology to check the school website and keep abreast of school-related news and events. Darlene added her lessons are usually lecture-based and that she incorporates a laptop and an LCD projector as she presents material. She reported that some of her students seem to prefer *PowerPoint* because they like to copy her lesson notes without much consideration of the material or the real significance of the lesson. Other students would rather go into the computer lab to conduct research on the topic so they can construct their own knowledge.

Daniel echoed Darlene's observation and mentioned the following:

We use computers daily in just about the same fashion. During each lesson I have students research topics that are covered in the book in a more thorough fashion (more in-depth) using the Internet. We have also learned how to distinguish edu sites which are usually the most accurate. Students also have the option to use the computer to complete class projects. This year we have used bridge design, virtual stock market, webpage design, *Publisher*, and *PowerPoint* as the major presentation and work sources.

Daniel added in his follow-up interview that his students research a wide variety of world history topics. As an example, he described his version of the castle construction activity. In Daniel's class, students conduct research on the reasons for having castles during the Middle Ages and the purposes they served for those who occupied them. He reported that in addition to being his most involved and most participatory activity of the semester, he is always pleased to see how much time students put into background research before constructing their castles. "Sometimes, kids even build castles I have never seen before, so I know we didn't talk about them in class. It had to come from their research."

Daniel also detailed how he gets students excited about economics, particularly the concepts of supply and demand by implementing a mock stock market project, developed by social studies faculty at the University of Georgia. This project invites students to assemble a stock portfolio wherein they buy stocks in reputable companies, track their performance, and

calculate earnings and losses. Daniel observed that although many of his students come from low socioeconomic backgrounds, they are intrigued and empowered by the activity. Daniel also noted that home computer access, particularly with his students from low socioeconomic backgrounds, can be a barrier to his successful use of technology in the classroom:

If students don't have computers at home, we have to use the ones in the lab to let them track their stocks. The computers in the computer lab were donated so sometimes they work and sometimes they don't. There may be a computer sitting in the lab but without an operating system set up, it is inoperable.

Nonetheless, Daniel encourages his students to use the technology they have. Students have learned how to distinguish between different types of websites and to recognize accurate and inaccurate information on those websites. Additionally, Daniel has enabled his students to design and manage their own webpage, and he encourages their use of *PowerPoint* and similar applications.

Trevor reported that he uses *PowerPoint* and an LCD projector in almost all of his lessons. He stated in his follow-up interview that he uses *PowerPoint* to enhance his lectures, review *Jeopardy* games, and encourage class discussions. Trevor regularly displays historical documents and works of art via *PowerPoint*, and encourages students to share their opinions, analyze pieces, evaluate them, and even create their own. According to Trevor, this use of technology encourages students to follow up on the displays in deeper detail, often demonstrating that they have gained deeper understanding. Trevor also shared how he uses the computer lab to facilitate students' participation in *WebQuests*, as in this example from his lesson on India:

The biggest one we have done was the one on India where I give them about five sheets of paper and it gives them strict instructions on what they do as they go through the *WebQuest* and they answer questions . . . the one on India is very in-depth and it takes them through the early Indian culture. It takes them through the early Indian religions of Hinduism and Buddhism. It takes them through the early politics of India. It takes them

through the geography of India. It is very thorough and does an excellent job and they really enjoy it. A lot of them want the hands-on stuff and in these *WebQuests*, they get that hands-on stuff they need and enjoy.

Similarly, Trevor detailed another *WebQuest* on Vikings, which invites students to take on first-person identities as they learn about Viking ways of life and adventures. During this activity, students ram enemy ships in attempts to destroy them and gain dominance over their counterparts. According to Trevor, students find this activity interesting and demonstrate measurable increases in engagement with content. Consistent with observations by Darlene and Daniel, Trevor reported that his students usually find additional information not discussed in class, which adds to their understanding, solidifies their connections to content, and demonstrates relevance between subject matter and their lives.

Caleb also shared that he regularly uses his classroom computer and LCD projector to enhance his lessons. In his class, these devices are generally used for student research. One of the research projects his students engaged in was on Ancient Rome:

Not really like a big research project like a research project but like we studied Ancient Rome and we look at things like Caesar Augustus and daily Roman life and how the city was planned out and they kind of get into it when we look up things like that and a lot of it has been through *WebQuests* and I find ones where they have to go through and read and answer the questions and it means that they actually have to read, so not necessarily research to write a big paper, but the times that I have used the computer lab, it has been for research on various topics.

During his face-to-face interview, Elijah deviated from the general consensus of his fellow teacher participants by asserting that he has mixed feelings on the use of technology in his classroom:

Not as much as I would like to. I would like to do more if I were more comfortable. I don't think it's an end all be all because there are so many different things you can use but they have so many distracters in them. They are looking at all the animations and transitions and not concentrating on what's at hand. It can be helpful for those that are impaired and learn visually.

Elijah's observation speaks to another barrier for the use of technology in the classroom. Distracting graphics and designs do arouse potential apprehension related to the use of *PowerPoint*, *WebQuests*, and other computer applications. In this study, however, Elijah was the only participant who identified these apprehensions.

This one example of apprehension notwithstanding, participants generally described high levels of technology use in their classrooms. They also reported using technology with deliberate purpose. Four of the five participants suggested when students are enabled to use the computer in multiple ways, they are encouraged to analyze and think critically about their interests, how they learn, and how they can become more active participants in the learning process. It was also generally accepted that computers, particularly, accommodate different learning styles and meet the needs of a wide variety of learners. Technology in general was seen as a way to enhance existing lessons and strategies, and to heighten active student engagement.

Research Question 2

What are teachers' perceptions of how their use of technology in the social studies classroom impacts student learning and engagement?

To answer this research question, the researcher asked the participants two questions during the third online focus group session: (1) "What are your beliefs of the benefits of using technology in your classroom?", and (2) "How can you make learning social studies meaningful through the integration of technology?" Participants discussed numerous perceived benefits of the integration of technology into the eighth grade world history classroom. Daniel suggested that technology makes information more readily accessible for students and teachers:

The greatest benefit I have discovered is that allows both student and teacher instant access to information and resources that cannot be included in the traditional textbook. It

also saves physical space and reduces costs in terms of printouts. I have been able to post work online, tests, quizzes, notes, etc. Primary source documents and audio/visual resources are just a click away. Creativity is also fostered in the area of assessment that can be utilized by the teacher. Teachers can also use so many different assessment techniques to gauge student learning if they so choose. Lastly I have found that it is much easier to keep students engaged if the latest technology is used. By keeping lessons interactive student interest can usually be maintained throughout an assignment.

In the follow-up interview, Daniel discussed how he uses *PowerPoint* in a variety of innovative ways. In addition to incorporating *PowerPoint* into his lectures, he also uses it to assign projects and assess his students' performance. Students develop presentations for class, and are encouraged to add music, art, and pictures to the design to make their product more unique and personalized. Students also create animations through *MovieMaker* and similar software. Daniel reported that students really seem to enjoy the creative license they are given. Daniel finds it easier to be objective when grading students' tests, but this is not true of his evaluations of their projects and presentations. "Tests have set criteria to assign grades to students, but the personalization of projects and presentations makes grading more subjective." Daniel also stated that he perceives technology as an engagement tool, and that he uses technology to stay in touch with students who are absent. This way he can keep students and parents up-to-date in classroom assignments and activities.

Caleb concurred with Daniel's observation stating, "Definitely gets students participating in the learning process. Students are so visual these days any chance at a computer or technology they love." In the follow-up interview, Caleb stated students tend to become more motivated when they are able to do assignments on a computer. For example, in his recent *WebQuest* activity on Ancient Rome, Caleb provided his students with a set of computer-generated guiding questions. The application encouraged students' use of the computer and to read with purpose, how to search for things on the Internet, how to conduct research, and how to determine the

importance of using multiple sources when conducting research. He observed students also learn more when they search for information themselves rather than have it given to them.

During his follow-up interview, Elijah also identified benefits to using technology. These included the likelihood that students' interest would be piqued with technology integration, which would lead to deeper understanding of the subject matter. Darlene also pointed out that computers may have this impact on students because they make it easier for students to connect with the world:

We live in such a global society and we are always going to be more and more connected but, if we use technology, it is just so much easier to connect with the world. What may be written in a textbook this year may be outdated by next year and when you have technology in the classroom, you are able to get the most up-to-date information and even when you study different educations around the world, it's easy with *Skype* and other such websites where teachers can connect with those classrooms and travel around the world so that you don't have to learn from what one teacher said from her trip. "Oh, so that's how they do it in Berkina Faso." You actually Skype over there to school in their capital . . . and we can really connect with those kids in a way that we never could before.

Trevor agreed with Darlene and shared his perspective that technology is unlimited:

I think it's unlimited. I think you're limited with what you can do with paper and pencil but with technology, you can do whatever you think of or whatever anyone can think of. That's the biggest thing with technology is that it's unlimited and there's so many things you can do with it that you can't do with paper and pencil . . . you can have too much of something and even though it's being unlimited is great, it can be too much if you let it be.

Throughout this line of interviews about the benefits of technology integration into the classroom, emergent themes included increases in active participation and engagement from students, and enriched communication with the global community. By enabling their active participation and more interaction with their peers in other parts of the world, students are able to construct their own knowledge was seen as a visible benefit to technology integration.

When asked about how to make learning meaningful for students of history, Daniel and Caleb both agreed that teachers must make a connection between past and present. They also

agreed that students need to see the relevance of history in order to make concrete connections between content and their lives. Daniel attested that technology helped with making the connection between past and present:

As difficult as it is you must get students to see the connections between the past and present. If you don't most see history as just learning about boring dates and old dead people. My goal is for students to make connections, parallels if you will, to see the similarities in historical events with the world we live in. If students cannot see the relevance of what is being covered with their world they will likely to assign it any importance. I believe technology aides us in helping students make these connections between past and present because it helps them stay engaged (or become engaged) with current events. I introduce them to this critical thinking technique early and try to remain consistent throughout the year. I will often give the first few examples but expect students to begin suggesting their own connections as the year progresses. Also, in daily lessons I try to encourage students to think about connections with every topic that is covered.

Caleb suggested that technological resources assisted in making the connection through the usage of "*WebQuests*, virtual tours, research, etc.":

We must make that connection to make it meaningful. Technology offers a great resource to make the connection. . . . In my class we try to make connections from the past to the present. "Why are we having to learn this and how it relates to me today?" These are questions I strive for when teaching. If I can make those connections and the students learn . . . success!!!

In her follow-up interview, Darlene shared that in order to make social studies more meaningful, teachers should get students actively involved and technology could assist with this:

Students can always use technology, for example, when we were making a history lesson on the history of Alabama, and we wanted to share that with the world, whether it be making CDs or DVDs to send to other schools around the world or around the country or putting it on a site like TeacherTube, which is the educational version of YouTube. The kids could take field trips where the kids take the video recorders or the cell phones that record or their cameras, and they document all about the history of Alabama through places they see through their eyes and we could create a curriculum unit that was created completely by students using technology that could be preserved for years to come that could be shown for everyone if they wanted to. I do think that technology is endless where kids can document their own history and that could be one thing that they could use it for.

Trevor noted that, through the use of technology, students are able to experience things they have never before experienced. “Everything in life is now technology driven. Through integrated technology in the classroom I can present material in so many different ways and give my students experiences that they have never had before.” As an example, Trevor discussed his use of *WebQuests*. He explained how his students participated in various *WebQuests* on historical places and times, including India and ancient Rome. *WebQuests* provided students with helpful and meaningful information about the places they were studying, and in Trevor’s prediction, if he continues using this technological medium, he will be able to see that students are making more connections to content:

We do talk about, especially when we talk about the fall of Rome, we compare it to what’s going on in the world right now and so I thought about us doing some research on the Internet and get a little more in-depth and instead of me telling them the fall of Rome, them finding out the reasons for the fall of Rome and as they are doing their research, I tell them to look up any of those things that are going on today.

Trevor discussed how he wants to facilitate students’ use of the computer lab so they may conduct research on Rome. This process would allow students to discover this information on their own. Trevor wants to make it more relevant to them and feels that makes learning social studies more meaningful.

Elijah revealed in his follow-up interview that he agreed with the other teachers in that teaching world history, students want to know how it relates to today. He reported that in his lessons on wars and other historical events, he has tried to draw comparisons between historical events and events that are transpiring today. He also finds it important to teach world history from varying viewpoints, so that students can get the big picture. Elijah feels that getting his students interested in the content presents a challenge. In his incorporation of technology, Elijah used *PowerPoint* and a document camera to display primary source documents and images for

class discussion. Elijah said that he likes to show the students streaming videos and docudramas from websites such as the History Channel and PBS but he even found that this presents an interesting challenge because his students want some sort of “wow factor” to get them interested in content. He gave examples of how they have demonstrated their affinity for gore, foul language, or violence. He related it to the economic term of the law of diminishing returns and stated that things that would have interested students 15 years ago are not so interesting to students today. According to Elijah, this is the primary challenge for teaching world history to eighth graders.

During the first focus group session, teachers were asked, “What do you see as your role as an eighth grade social studies teacher?” In the follow-up interviews with the teachers, an additional question was posed: “What are some of the unique challenges and benefits of being an eighth grade social studies teacher?” Darlene began her response with a Japanese proverb: “better than a thousand years of study is one day with a great teacher.” She saw that eighth graders were close to being high school students and felt it was her role to prepare them for this challenge:

It is my goal to give students substantial knowledge about world history. More importantly, I hope they leave my class with a love of the social studies curriculum. By incorporating a variety of teaching strategies, I hope to maximize the learning styles of all students, so they can become productive high school students. It is also my goal to help them learn about the world from first-hand experiences. Each year, I take students to overseas to see a new culture. I’ve taken students to Germany, Austria, and Switzerland. This summer, I’ll be taking students to Australia for 18 days. I wish I could take every student I teach on an overseas trip to truly help them appreciate world history by seeing the world for themselves.

In the follow-up interview, Darlene observed a unique benefit of the fact that some students come to her with little to no knowledge about world history:

When they come to me, they have never had a complete class on world history. They have had some world geography and they may have studied about like Cinco de Mayo in

the third grade but they don't really know anything about world history. So what I like is that it is a blank slate and you get to start from scratch and you really get to teach them history as it should be told, which is one great story and we get to include so much information not just the United States but all over the world and I think that is one of the greatest perks of teaching eighth grade.

One of the unique challenges Darlene finds is the difficulty of pronouncing the names or even having knowledge of them.

I believe that one of the biggest challenges . . . is it is sometimes difficult because some of the names they can't pronounce. I know in our course of study, we cover all of the basic world religions and for a lot of kids that have never left . . . Alabama . . . I had a parent last year, and I was teaching a unit on Islam and their beliefs and the parent called and said "Oh, my child just cannot learn about Islam, is this in the book?" And so I sent her a copy of what we were learning out of the textbook. . . . We teach it just like we teach Buddhism, Hinduism, and Christianity and that is one of the challenges I face, not every year, but you will sense it in your classes, especially some of our kids . . . and to take them out of their comfort zone of what they have been taught religiously, to even teach them the basic tenets of other religions, sometimes it can be challenging, fun but challenging.

Trevor added, "My goal as an eighth grade social studies teacher is to produce quality individuals that have an appreciation of where we have come from as a people." He wants his students to see the importance of being productive citizens in their society. Unlike Darlene, Trevor identified this lack of knowledge as a challenge rather than a benefit:

I was going to talk about one of the challenges, which you saw as a benefit, which is world history. It is always difficult for eighth grade students to take world history unlike English. I always tell them at the beginning of the year that this class is not easy. In English, you all have heard of words before and in math, you have all seen numbers but we are going to be using words from foreign languages that you are not going to understand. It's going to be stuff you have never heard of before in your whole life. . . . I think that is one of the challenges that I have and it's difficult, it's very difficult for them to understand concepts when they can't even pronounce the words or the people's names. They have no idea and so world history is extremely difficult for an eighth grader but, for the most part, they are kind of open to it whereas they may get really bored in English because they are like, "I have had this stuff all my life," a lot of this stuff in world history is brand new to them and so there is a lot more interest than there may be in an English or a math class.

Daniel said, “My overarching goal is to help students see the threads humanity shares as individuals, governments, and society throughout time.” He wanted to equip his students with skills to critically analyze history and realize the “why” behind studying history.

Dates and events are useful but if they are viewed in a vacuum with no context they immediately become useless. I want students to be able to view the material they come into contact with critically each and every time they view it regardless of the content. My aim is for them to, automatically ask, “What is this about? How does it affect me? What does this mean to society at large? What is this like? Why did this happen as it did? etc.” Each time you see the “light go on” you feel like you made a difference, and that light is the reward a teacher enjoys most.

Daniel identified some benefits of being an eighth grade social studies teacher. Among these benefits was the perception that content is so varied. Students are able to study many cultures and see how the society they live in took shape. Students also gain an appreciation for social, economic, and governmental systems throughout history. One distinct challenge he faces is keeping his students motivated. Daniel reported that he feels that eighth graders

take their foot off of the accelerator. In sixth grade, they are still pretty motivated, so trying to get them to stay focused and realize that it is really going to start up for them in the ninth grade is problematic.

Caleb opined that he wants students to learn how to think for themselves:

They are so used to passive learning. I want to get them active in the learning process. Foster those critical thinking skills. Help them to problem solve. Provide them with the skills necessary to become productive citizens, ultimately to build character within each student. So, when faced with choices . . . they make the right one. History is full of people who made bad choices with terrible consequences.

Among observed challenges, Caleb shared that he has trouble helping students see how content relates to their lives:

First of all, relating it to them and their everyday life. Some of them are automatically interested in it and, like we just did the Romans, and some things are more interesting than others. You know, you talk about the Middle Ages and the Black Death and oh, they love that because they get to see all the gross pictures and things but the biggest challenge is making it fun, exciting and relating it to something that they can grab hold to without it

just being a lot of isolated facts and information and trying to make the connection. Now that's hard.

Caleb also identified some benefits. He pointed out that students are still moldable and have not totally hardened to history and related information their teachers provide them. Students are still open to learning and for that reason Caleb feels he can incorporate different activities in his classroom.

Elijah discussed how his role as an eighth grade social studies teacher was to help promote a desire in his students to learn about what came before us and how it impacts our lives today and in the future. He wants to find those interconnections and interrelations between the world history content and the students' everyday lives to make it relevant to his students:

Then you have the question, "well that happened in the past," but the things that happened in the past can happen in the future because of ignorance on our part. . . . The main thing for us to do is to learn why things are the way they are.

Elijah also identified benefits, such as the observation that he actively generates interest in his students, allowing them to delve into subjects more deeply, and prompting students to develop meaningful interest in world history. Students' perceptions of world history present another challenge:

The challenge is "I don't need this," "I only have to have math and science or social studies and I am passing science," so it's really a nonissue at that point and that's the kind of attitude they have. The apathy of "why do we need this."

This discussion about classroom challenges revealed an overarching emergent theme that teachers want students to grow in their knowledge about world history through engaging actively with the content, but that several barriers often keep this from occurring. Students' perceptions of history and social studies can be particularly challenging in this regard.

The researcher also posed the question, "How do you utilize your TPCK when teaching your students?" but received no responses. When the researcher conducted the follow-up

interviews, these teachers had not heard of TPCK and therefore did not feel knowledgeable enough to answer the question. The researcher introduced the framework in more detail during the follow-up interview and received many enlightening responses thereafter.

Daniel felt that the teacher should find one unit in history to focus on and use the content, pedagogy, and technology knowledge:

I'll give you an example of the Roaring Twenties mixed in with the Great Depression where you had the stock market crash and I incorporated into it the stock market unit where they went to the Dow Jones and they watched the little ticker and they watched in real time the stocks and see how all that works and then we proceed with the stock market unit and if they have something that they are engaged in, they are going to learn from it and enjoy it. It allows you to be able to cover all of the content that you want and it makes it much easier.

Daniel provided another example relating to a recent lesson on Middle Ages. After learning about this time period, he allowed students to watch a series called *Pumpkin Chunking*, which was based on the era of the Middle Ages. This series presented the history of the Middle Ages through a lens of science, explaining events and tragedies like the Black Plague by tracing the medical implications. Students responded positively to this series. Daniel also presented a similar activity when teaching about the space race of the 20th century. Students watched a digital animation of the Sputnik launch, cross referenced these images with segments from the movie *October Sky*, designed and constructed their own rockets, and learned how to propel them into the air. Daniel remarked that this hands-on approach aided his teaching across the curriculum. He opined that usage of technology motivates students internally, confronting this common challenge for students.

Caleb felt it was important to incorporate as many learning strategies as possible, like *WebQuests* and scavenger hunts:

You've got the technology, the strategy is that you are differentiating instruction that way, the visual learning, they're constructing knowledge and they're actively having to

do that and then you have the content, hopefully in there about what they're learning. The problem is doing that on a continual basis. It don't happen but it would be awesome to do that because sometimes you just have a hard enough time connecting the content with the strategies besides just throwing content information out there at them. That's the million dollar question. If you can stick those three together, you'd be the ultimate teacher, in my opinion, you'd be the ultimate teacher if you can get all those meshing together 80% of the time but that's going to be done through training. . . . I'm learning everyday and it's been 11 years and I'm still learning new ways to do stuff, new ways to teach it.

Elijah stated that if teachers are going to do too much of any of the three areas, err on the side of content:

The challenge is trying to balance the three because I think you do need more activities, not just for me, because I believe teachers are more of facilitators than they are anything else and that's where the entertainment part comes in. I think that you need to have activities where you get your content in but you do it in a technologically advanced way, through the *PowerPoint* or through video streaming and then you can also get the technology in with the students by allowing them to present different topics on the content area but I still think the best way to teach history is through character study. . . . Maybe they can't relate with a term or some generic principle or something, but they can look at an individual and that sort of connects them. It does with me because it makes the subject more real.

Elijah also pointed out that it is important to teach world history through character study, which entails really breaking down the elements of the historical person because people can relate to people more than they can connect to facts and dates.

Darlene stated she is constantly looking to improve her lessons. She looks back at how she taught it last year, what she can do better, and what new content and technology she should include:

Like this past summer I went to Greece and I thought, well I have taught Greece before, I know I'm going to increase my content knowledge because I am going there but I can also increase the knowledge through technology when I created that blog and so I blogged to the students and that was something I had not done in the past. Just to be able to talk to students or post information about world history over the summer while I was also teaching them content. I think that would be a good way.

Trevor added to this by observing,

I'll be honest with you. I don't do a very good job because I feel we're so limited in our technological use . . . the big thing is content because when I started teaching world history, there were about five topics that I knew nothing about and I had to learn those and I think that that goes above everything else.

Trevor admitted he has never had a class on Asian history or African history and that many of the classes he took as electives in college were topics of interest to him. He stated that he needs to include more technology with the content he teaches and employ a variety of teaching strategies. He attended a workshop about varying learning styles and different strategies to use in order to teach all students. Trevor felt technology was important because it makes a subject that was not really hands-on in the past become just that and, integrating that with different learning and teaching strategies, while at the same time making sure the content taught is good content causes a teacher to be quite successful.

Research Question 3

What barriers do social studies teachers face when integrating technology in their classrooms?

To answer this research question, the researcher asked the following question during the second online focus group session: "What are some of the barriers that you face in attempting to integrate technology?" Darlene stated that some of the barriers teachers faced in their district were restrictions of the usage of technology:

Barriers include all the rules regarding technology. For example, last year YouTube was banned and could not be accessed from school computers. YouTube has some educational material that is good for classroom usage. For example, when teaching about China, I like to use the "Ask Benny" videos to help students learn basic phrases in Chinese. This year, the Hill County [pseudonym] system unblocked YouTube, so it is now available. But there are other issues. For instance, most principals discourage the usage of sites such as Facebook for social networking with students. If used properly, this

could be a great teaching tool. More and more courses are being taught online, and this would be a great way to teach students using an online classroom/discussion site.

In her follow-up interview, Darlene also reported that students' inability related to using the computer could also be perceived as a barrier to their success. She stated that students were required to get permission from their parents to use the Internet, and that many do not respond.

In her words, the Internet permission requirements are the same as asking parents' permission for their students to use the textbook. Darlene said there are all types of filters and blocks on the computer and teachers keep a strong and strict restriction on what websites students are allowed to visit. Problems arose when the forms were not returned, because without them, students cannot use the computers. Hence, students cannot participate in conducting research and Darlene considered this to be a big barrier.

Daniel identified additional barriers to teachers as lack of funding and teacher confidence. He said, "Many teachers feel they 'can't' use the new media and won't even try." Daniel also felt a lack of resources was a barrier. He believed the "negative possibilities and fear of lawsuits . . . are behind many systems' timid view of online activities." He shared that he used to post information and coursework online for access by his students and had students share and collaborate on their work; however, he has discontinued this usage due to warnings of potential problems:

Well they just started blocking a lot of sites. We couldn't use email. They started blocking Geocities, where I had a free class website and now we just have to use the cookie cutter website. . . . It was mainly problems with personal security concerns and problems with identity, you know, getting leaked out about the kids.

Trevor stated that his biggest barrier was the lack of technology:

In my classroom I have one computer and one overhead projector. This is the extent of technology. I do have access to an LCD projector and laptop from the library if no one else is using it on the day that I need it.

Trevor noted in his follow-up interview, that although the school has an adequate computer lab, the facility is used by the whole school, and reservations are needed as it is always full. Instead, Trevor has taken a lot of control over the LCD projector that is supplied through the school to incorporate technology into his instruction. He believed that, "More access to technology would allow me to integrate it more often in my classroom." Elaborating on this, Trevor believed that if he had four or five computers in his room that would really help his use of technology with students. Trevor also felt if he had his own LCD projector, he would integrate technology daily.

Caleb described his lack of access to technology to enhance his lessons but said the problem lies in students actually being able to use technology. "We have a lab if you can get it." In his follow-up interview, Caleb said all teachers have LCD projectors in the classroom but students do not have the opportunity to do many hands-on activities with it. The LCD projector is used as a means of presentation. There are *Smartboards* and games with remote controls available for teachers to check out of the library. Caleb stated some of his students say they do not have access to the Internet or computer at home, which makes it difficult to assign project assignments outside of school. He believed that in order to overcome the barrier in the school, teachers can sign up for the computer lab but they have to sign up early in order to gain access.

Elijah also added during his follow-up interview that there is a lack of equipment; he believes the school can definitely use more computers. There is use of a computer lab or library media center, but one has to sign up early. Varying ability levels of students should be taken into consideration when using technology. Teachers should observe the effort and confidence students employ when using the computer to determine exactly how far to go. Themes throughout this discourse included lack of ability to use the Internet and lack of technology resources.

Another question the researcher asked the participants was “What is the accessibility of technology in your school?” Darlene said that their adopt-a-school partner had donated a computer lab to the school with around 40 computers and a *Smartboard*. Some teachers rely on overhead projectors but some have an LCD projector in their classroom. In her classroom, Darlene had an LCD projector but had to purchase the laptop with her personal money. Her laptop was stolen and she was presented with the challenge of either buying another laptop out of her own money or racing to school to try and check out the available laptop before another teacher did. Darlene opted for buying another laptop which, for the time being, is still in her classroom. She feels that this is only the teacher-centered side of technology. On the student-centered side, Darlene believes there are many options available such as using cell phones, although they are prohibited at school. She said she read an article about a science teacher who was teaching his students about plant species and allowed his students to go behind the school and, with their cell phones, take pictures of the various plants, flowers, and trees they saw. Students would then email the teacher the pictures from their cell phones and the teacher would display the plants, flowers, and trees for a whole class discussion of what they found. In light of this strategy, Darlene feels there are good activities that can be used with cell phones. She also felt using Skype would be a good addition to the classroom. Instead of students learning about politics, for example, from reading it out of a textbook or online on the Internet, teachers could connect with a Senator from Alabama, via *Skype*, and students could have the opportunity to ask the Senator questions. This instructional strategy makes learning more interactive and engaging and students are learning the content in more meaningful ways. Darlene also believed there was a need for her school to have more than one computer lab. She was aware of some schools that have a computer lab on every hallway. She also saw the need to have at least one working

computer in each classroom. Darlene spoke of how several schools are trying the idea of paperless schools and giving each student a laptop/computer and students turn all assignments in electronically. She sees a school piloting a program like that and compared it to her school with one computer lab and where the school cannot even fund paper for them. Darlene feels the “Race to the Top” initiative will help Alabama schools. Her school’s application ranked 37th among 41 applications and, when done, will bring about major changes in their school. Darlene says the initiative deals with innovation and she is interested to see the outcome.

Daniel said through a private donation fund, teachers have been supplied with LCD projectors in each of the classrooms. His school also has three computer labs but many of the computers are not working and software and hardware on the computers are outdated. Daniel would like to see some assistance in getting their school caught up:

You know, I’ve said this for the longest time and this is ever since laptops became affordable. I think we should get rid of school textbooks. I think middle schoolers should get a laptop, we should have WiFi access in the classroom, wireless printers, and the students could just carry that through sixth, seventh, and eighth . . . I think it would be easier on the students. I think it’s actually even cheaper than buying textbooks and it would be a lot easier to update and make addendums. . . . You could update those things easier if we had things that were more digital. . . . It’s a big, big challenge when you have some that have zero experience on the computer and then you have some that could take college courses in it and be computer techs. It’s a little aggravating especially when you see it’s something that could be manageable. You see the benefits of it, cost-cutting and then you could refurbish those and give them to the next group or let them take them on to high school.

Trevor said his classroom has a minimal amount of technology, which includes a computer, an overhead projector, and an LCD projector and laptop he checks out from the library. A neighboring business assisted the school by donating resources for a computer lab equipped with over 30 student computers, a teacher computer, and an LCD projector. Trevor also added that, before this addition, teachers had to take their students to the library media center to

work on the computers. In his follow-up interview, Trevor stated he feels everything comes down to funding:

We don't have money to buy textbooks. The textbooks that we'll be using will be 8 and 9 years old, so there's not going to be any money for textbooks, much less us buying a CD of the textbook for every student, which would be great. The students wouldn't have to worry about lugging around and keeping up with the textbooks but there's just no money for that. I would be great if they could have that because it would make everything so much simpler for everybody's life but the funding issue is a major problem.

Caleb said his school has two computer labs, but if a teacher wants to use one of them, they must sign up very early. He also said teachers have *Smartboards* and LCD projectors in their classroom and these are "great resources." Although the school has *Smartboards* for teachers to check out, Caleb has not used one yet. He said he received a demonstration on it, but again, noted training is a big issue on the type of technology that is incorporated into the classroom.

Elijah felt his school was pretty average in the amount of technology available, in comparison to neighboring schools. They have one computer lab with between 22 and 23 computers and a library media center with around 15 brand new computers. There are also two or three document cameras available for checkout in the library, as well as laptops. A benefit Elijah expounded on in his follow-up interview was technology has the ability reach students at their ability level, since they already use technology outside of school. He believes that technology can help with students' reading comprehension level because it is something with which they are familiar and gets them more motivated because the textbook can sometimes be intimidating for them. Elijah does not want textbooks to become obsolete, but rather would like to find a happy medium. He also believed adding readers that can assist students with impairments would be beneficial. These tablet readers, Elijah believed, will be used more in the coming years and may even be cheaper than buying textbooks, especially since teachers are

already using outdated textbooks in the classroom. Themes through the transcripts were schools have minimal resources and resources were donated through outside sources and funding.

Research Question 4

What support, including formal and informal training, do social studies teachers have when integrating technology in their classrooms?

To answer this research question, the researcher asked the following question during the first online focus group session: “What type of training and/or support do you have in integrating technology into the social studies classroom?” Darlene said she took a technology course during her coursework at The University of Alabama, but that was a long time ago. She stated they were provided with basic information. At the time, Google was not yet invented, so students were learning and excited about how to send an email. Darlene also said during her M.Ed. program, she took an innovative technology class, but she was only taught how to use *PowerPoint*, which she was already acclimated to utilizing. She stated that technology changes quickly and teachers must keep abreast of emerging technologies. Darlene also received training in using Skype. She said she received the opportunity through a grant when she was going to Japan. Darlene was encouraged to interact and communicate with her students during her trip so Skyping became her option. She stated that Skype is easy to use and there is no need for extensive training. Skype could feasibly be introduced in a faculty meeting and all of the teachers would have knowledge and access to using Skype with their students. It is a free service and can be used as a phone and/or a webcam for video conferencing. Darlene anticipated using Skype to enable her students to communicate with students in other countries, but ran into the time difference problem. To overcome this barrier, she is going to propose using Skype during PTA meetings, because

meetings are held at night. Even though there would be few students there, Darlene felt this would be beneficial and may become an incentive for students to participate at the PTA meetings.

Daniel, Caleb, and Trevor all agreed that their knowledge of technology is almost entirely self-taught. They also were in agreement with Darlene that professional development only taught technology teachers already knew how to use and were comfortable using. Trevor attended a few workshops sponsored by the University. One such workshop, as stated in his follow-up interview, was on integrating technology into the social studies classroom. Trevor learned how to use and incorporate *WebQuests* into their instruction. Trevor found this to be helpful because he was not as knowledgeable as other world history teachers in all of the areas of world history. His class participated in a *WebQuest* on India. He found one already designed, which he saw as a benefit because teachers do not always have time to create a *WebQuest* themselves.

Elijah stated in his follow-up interview that he has attended a few seminars on using technology in the classroom but the seminars were not hands-on. Participants were only allowed a limited time on computers and were told how to do everything rather than being allowed to interact with and experience the software. Elijah found this to be an ineffective use of professional development and got very little out of it. He also stated he has mixed feelings about using technology. He is not technologically savvy and feels he comes from the “old/new school.” Elijah said he was at the end of the period when technology was not being used that often and at the beginning of the period where it was being encouraged and feels he sometimes falls through the cracks in technology integration as an eighth grade world history teacher. Elijah believes he lacks the confidence to use technology, which sometimes makes him fearful of its incorporation; he believes that training is a huge need.

In his follow-up interview, Caleb said he would like to see more useful training being provided. He wants to learn different strategies on how to use the computer and Internet with his students. For example, with *WebQuests*, he would like to see training on how to use them with students and how to create them. Caleb was not aware of any technology training provided through the nearby university, but in the past, has attended a few summer workshops on technology use. He feels he has to keep himself up-to-date on all of the technology strategies available but finds it to be a challenge with 36 students in a classroom.

Previously, Daniel stated that professional development training taught him how to use things he was already knowledgeable about. In elaboration during his follow-up interview, he stated he is preparing to attend a Global Positioning Systems (GPS) workshop that will teach him how to incorporate teaching geography with GPS and how to get students to use them effectively. Daniel hopes he will be able to find funding to purchase several GPSs for the classroom. He would like to see more emphasis on digital videography, in which students can use their camcorders and up-to-date editing software:

We have some basic stuff that comes with the computer, but the students are real interested in stuff like that when they can recreate skits and do some things that will allow them to do more things in being more creative.

Themes found were teacher participants' technology training was self-taught and professional development provided was insufficient. Teacher participants provided relevant and realistic solutions to this lack of effective professional development and training.

An additional question the researcher asked the participants was "How can teacher education programs better equip their pre-service teachers for integrating technology into the social studies classroom?" Daniel said that everyone knows how to use *PowerPoint*:

Classes could add tried techniques that have been successful in the classroom. I would encourage the Dept. of Education to go into the schools and see what teachers have tried

or are doing. We have done digital camera assignments with writing, GPS activities, digital video and editing (music and graphics), photography (darkroom and all), webpages, pivot animation, etc. There are so many possibilities and if the College wants to improve these resources should be explored and considered.

Daniel suggested some strategies sound great on paper, but when he actually entered into the classroom and saw what real teaching was, he was not prepared to use the technology he had been taught. He suggested that teacher educators need to spend more time in the classroom to see what is going on and what is being done because they sometimes seem out of touch:

I think it would be beneficial, because a number of the instructors I had, it was clear that they had not spent much time in the classroom or if they did, it was the best classroom in the world ever, probably with an 8 to 1 teacher-student ratio, not 1 to 36 like we face, with no resources.

For example, if you have 36 students in your classroom and limited resources, what can you still do to incorporate technology into the classroom? Daniel feels pre-service training needs to be more realistic. He recommended teacher educators go out into the communities and across the state into the classrooms and witness what teachers are doing and bring those experiences back to the classroom:

I mean because we have so many examples of teachers who are doing creative things and they just may keep them to themselves. I know one . . . she does wonderful things, you know, and I don't know how much of that she shares with the College of Education. The University is a wonderful resource for us because we can access that. But like I said, we are a resource for them as well. They need to go out and see what's working. See what these teachers are doing in their classrooms and bring some of the students in, not just methods.

Rather than waiting until the third and fourth year, bring them in the first and second year so they can get firsthand experience of being a teacher. It is good to catch them early and determine whether teaching is really the route these pre-service teachers want to take rather than waiting for the third and fourth year when they feel it is too late to change their major. Daniel also said it

would be beneficial for teacher educators to ask pre-service teachers what types of things their teachers used and how it worked.

Caleb suggested that the teacher education classes make sure that technology integration is realistic:

Not sure what is offered now at the universities . . . but . . . make sure technology is realistic. Most new students will walk into teaching without many of the technology resources available. No computer labs or not enough computers, not *Smartboards*. Something on how to operate some of the latest technology would be nice, etc. The classes need to be creative.

In his follow-up interview, Caleb also said a big thing to show pre-service teachers is different ways they can use the technological resources they have available:

I guess the big thing would be, what activities can we do using the computer maybe with a whole group for instance, if you only have an LCD projector and one computer, what are the different things you can do? Alright now, what if you have a computer lab, besides a *WebQuest*, what else could you do? Besides a *PowerPoint*, what else could you do? So making sure that what they're learning is realistic and really some hands-on instruction at the university and I'm sure they do but I don't know.

Caleb felt it is important to alert pre-service teachers that it takes money to get a lot of resources and there is not much, which is a big barrier:

Because I've seen plenty of things and think, "Oh, that'd be cool," like you can get an order of this magazine where they would go through this computer program and play these game simulations and you think, "Oh, that'd be awesome," but it costs three hundred dollars. Well there you go. That technology's out the window right there."

Also, prepare pre-service teachers to know the more students they have in their classroom, the more challenging it will become to integrate technology.

Elijah felt pre-service teachers seem to be more technologically prepared for the classroom but sometimes less prepared in content knowledge. In his follow-up interview, Elijah believed education is a moving target:

For a long time, it was, "Well, we've got to get back to more of the core objectives and the subject matter" and then, "Well, we need to go all in to technology" and then, "Well

we need to have a fine balance here,” so I guess that’s what we are always trying to do, have a balance.

Darlene added in her follow-up interview that when preparing pre-service teachers to be world history teachers, for instance, allow them opportunities to travel across the world:

As a world history teacher, the best way to learn about world history is to go somewhere and to learn about it and I really think that before a pre-service educator graduates from a college where they’re going to be teaching world history, they should at least have the experience of being to one country that is not the United States and preferably not even a Western European country that is somewhat different than ours but still has the same air of safety. . . . I think there’s a quote that states the world is a book and those that do not travel only read one page and I couldn’t imagine having a teacher who only read one page of the world history book and tried to teach me world history and I think that’s the most important thing that as a world teacher that colleges should mandate for their pre-service teachers.

Trevor concluded that pre-service teachers should be given a variety of technology tools they could use in their classroom:

Through creativity students will remain engaged in the class and therefore will be more productive. Technology in the classroom and teacher education programs need to show the students all the different ways that technology can be used in the classroom.

Trevor wants to get away from using one type of technology, and wants the same for pre-service teachers, to teach from each and every day, such as using *PowerPoint* to lecture from daily. He says he knows it is difficult to get away from lecturing everyday because social studies lends itself to this type of instruction, but he feels that variety and creativity, which he struggles with, are essential to teaching students:

That is one thing that would have helped me before coming out. Some of the other classes that I had to take did not prepare me because some of them didn’t teach me how to teach and the classes that will teach me how to teach by using this technology. . . . Having all these different varieties would have been much better for me.

Trevor feels these types of courses will be beneficial to pre-service teachers because the classes he took in college did not teach him how to teach but rather just taught him the content. He believes this preparation makes for a better teacher in the long run. The overall themes found

under teacher education were technology taught to pre-service teachers needs to be realistic and needs to show creative methods to integrate technology into their future classrooms. This can prepare pre-service teachers for situations they may encounter in the classroom.

Summary

In analyzing responses to the focus group session questions, the researcher found that the participants' responses confirmed what the research literature suggested about technology integration. Overall, participants were highly supportive of technology integration and willing to use emerging technologies in their presentation of world history content. Barriers to technology integration include lack of funding, lack of adequate access to technology, and lack of confidence among students and teachers in using technology. The researcher also found teachers are quite knowledgeable about emerging technologies available and have attempted, and many times were successful, to integrate these technologies into their classrooms on an ongoing basis. Teacher participants spoke of technologies not usually found in the research literature, how they used the technologies in the classroom, and students' reaction to this integration. They also see a pressing need to better prepare pre-service teachers for the environments in which they will be teaching and felt it was the ultimate challenge for a teacher to learn how to balance the technological, pedagogical, and content knowledge in their instruction. Teacher participants generated creative and innovative ways to overcome barriers and suggested viable solutions to aid with lack of funding, technology, and resources. The information gained from these focus group sessions and follow-up interviews informed the study and confirmed pertinent literature as discussed in Chapter 2.

CHAPTER 5

DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Discussion of Findings

Overview

The purpose of this study was to examine perceptions held by eighth grade world history teachers on technology integration and its perceived impact on students' learning. The researcher linked what research literature suggests teachers do in the classroom with what is actually occurring. Teachers in this study perceived that hands-on and cooperative learning activities were appropriate learning strategies to use with their students, which is consistent with research literature (NMSA, 2009). They gleaned the importance of providing students opportunities to actively engage with content and collaborate with peers. Although this perception was communicated through teachers' responses on focus group and interview questions, their current practices speak to the contrary. It is evident that teachers in this study are knowledgeable of technology tools but they appear limited by the amount and level of technology used.

Teachers described their perceptions on using technology to make social learning more meaningful, more relevant to students' lives, and more connected to students' prior experiences. It is evident that teachers understand the importance of meaningful learning in social studies, but again their current instructional practices do not reflect this perception. The teachers illustrated the challenge of transmitting a large amount of information to their students. They stated that it was simpler to teach information through lecture, with minimal active interaction with the

content. Teacher participants also attested to occasionally engaging students through discussion or *WebQuests*. In preparation for assessments, teachers reported that students engaged in rote memorization of historical facts and dates.

Chapter 5 is designed to discuss themes exhibited throughout the focus group and interview sessions. Four major themes emerged: (1) participants' perceptions of the roles and responsibilities of an eighth grade world history teacher, (2) participants' perceptions of the components of meaningful learning, (3) participants' perceptions of the importance of hands-on learning, and (4) participants' perceptions of barriers to technology integration. This chapter will provide more in-depth analysis of each theme.

Participants' Perceptions of the Roles and Responsibilities of an Eighth Grade World History Teacher

Teacher participants reported that their responsibility as eighth grade world history teachers was to as follows: increase students' ability to employ higher-order thinking skills, become more motivated in learning world history, and increase their knowledge of world history. They also affirmed the importance of students' increased awareness of current events and ability to understand an events' relevance. Darlene, Trevor, and Daniel present current events in scenarios that ask students "If you were in this situation . . . ?" They reported that this prompt enhances students' ability to think critically, which is vital to students' academic and personal growth (Mills & Pollack, 1993; NCSS, 2006; NMSA, 2009).

Teachers expressed their responsibility of developing their students into productive citizens but are they doing so by not providing new opportunities for their students' personal and academic growth. Are students getting the necessary tools to succeed in the 21st century by using outdated technology tools? This generation of students is using the latest technology such as

iPhones, iPads, and iPods. Today's middle school students have learned how to use and design *PowerPoint* slides in elementary school. Are the students of Darlene, Elijah, Trevor, Caleb, and Daniel being adequately prepared to become more marketable in the workforce? Are the teacher participants doing their students a disservice by not equipping students with the technology knowledge necessary to be successful? Perhaps teachers would feel more competent in the roles and responsibilities of preparing eighth grade students if they were provided with the necessary tools. Teachers should be afforded with adequate training to properly train students to become productive citizens and, conceivably, more successful.

Teacher participants acknowledged the importance of enhancing students' critical thinking skills. This statement exemplifies teachers' realization of their roles as eighth grade world history teachers but are they doing enough to equip students with these higher-order thinking skills? Through their own admission, teachers stated that it was simpler to teach world history through lecture and other teacher-centered approaches. Darlene, Trevor, and Caleb reported using their computer and LCD projector to display lecture notes for their students and this practice assisted them in conveying necessary world history material to students. There are appropriate occasions to employ teacher-centered instructional strategies, but it should be balanced with student-centered learning strategies that actively engage students in the learning process. Teachers who mentioned integrating technology to employ student-centered instruction gave examples of one or two instances throughout the academic year. This minimal amount of technology exposure is insufficient to prepare students to compete in today's society. Teachers should be encouraged to expand their horizons of varying instructional technology tools possible for incorporation into their classroom. This would conceivably increase and enhance students' skills and abilities and improve their chances of become productive citizens. The teachers used

the technology tools effectively but adequate training of more innovative technology tools available for incorporation could increase their knowledge of approaches to prepare their students.

Teacher participants expressed that their use of *WebQuests* provided students with the opportunity to think critically about historical events because the information supplemented content knowledge gained during classroom lessons. This can be a true assertion but teachers should go beyond one or two opportunities of student enhancement of higher-order thinking skills. Increase of students' critical thinking skills do not automatically occur because of technology integration (Haselhuhn et al., 2007; Hernandez-Ramos & De La Paz, 2010; Sanders, 1999). Teachers have to be proactive to ensure this potential increase. They should evaluate the credibility of the *WebQuests* and not take them at face value.

Too many teachers are under the perception that technology automatically and immediately increases students' higher-order thinking skills because they are using technology and that, in the case of these teacher participants, *WebQuests* enhance critical thinking because students are actively involved in the process. This is not necessarily true and it was evident that some of the teacher participants agreed with this assertion. When asked about the technology tools used to enhance students' higher-order thinking skills, teachers usually reverted back to one or two projects they completed conducting research on the computer or completing a *WebQuest*. Perhaps eighth grade world history teachers should inquire of their students what types of learning activities will cause them to think critically and evaluate the probable activities for possible implementation. Students are insightful and resourceful and teachers should take advantage of their recommendations and suggestions.

Participants' Perceptions of the Components of Meaningful Learning

Teacher participants detailed that meaningful learning in social studies should be relevant and connected, provide students with opportunities to construct knowledge, allow for students' active engagement with world history content, and be taught from multiple perspectives. They stated their use of technology (e.g., *WebQuests*, virtual tours, computer animation, Skype, *PowerPoint*, etc.) and hands-on learning activities (e.g., making Faberge eggs, castles, newspapers, etc.) were their attempt to make learning world history more meaningful, relevant to students' lives, and connected to students' prior knowledge. Although these activities are hands-on and provide students with active engagement, these strategies are not enough to make learning of social studies meaningful. For example, some *WebQuests* lead students to multiple websites to answer questions that are verbatim in the provided passage. This *WebQuest* activity could possibly enhance students' reading comprehension skills but the lack of analysis impedes their ability to make meaning of the content. Skype has the potential to make social studies meaningful by encouraging students to speak with culturally diverse students and sharing differences and similarities. This active engagement would assess students' prior knowledge of the various cultures, ability to communicate effectively, and ability to discriminate between relevant and irrelevant information. Students could gain meaning from such an activity because they begin to realize the relevance and connection of world history to their personal lives and experiences. Teachers understand the importance of making the content relevant and connected but do not always follow through in the instructional strategies they decide to use with students. It is apparent that these teachers are knowledgeable of the significance of exposing students to activities that make social studies content more meaningful but their pedagogical choices do not always reflect this perception. Perhaps the teachers are so pressured to cover all of the world

history material that they lose sight of the importance of going in-depth versus teaching content superficially. Although teacher participants confirmed that students lose interest when content is irrelevant and disconnected, they teach in a contradictory manner that can best be described as covering a vast amount information for rote memorization, later retrieval, and lack of relevant application. It is evident that these teachers want to make social studies meaningful for their students, but maybe they have not been trained on multiple methods to accomplish this goal. Teachers should take it upon themselves to research various approaches to ensure that social studies content is learned meaningfully by their students.

Teacher participants observed that students were accustomed to passively learning social studies and suggested that actively involving students with learning world history could increase their understanding. They chose to integrate technology in their classrooms to increase meaningful learning (Hofer et al., 2006; Russell & Waters, 2010). Trevor and Caleb stated they use *WebQuests* because they reinforced classroom discussions, increased students' reading comprehension skills, and enhanced students' higher-order thinking skills. They expressed through reading historical information, answering guiding questions, and determining information's credibility, students better understood world history content and enjoyed the learning process. Darlene used blogs to document her overseas travels and communicated with students by answering questions and teaching about world history through multiple perspectives. Darlene stated she plans to use Skype to communicate with classrooms in other countries and suggested teachers' use of Skype to interact with influential leaders in world history. These observations reveal that teachers are knowledgeable of teaching approaches that benefit their students. Why do they employ these instructional strategies so infrequently? Maybe it is because they are not being encouraged to do so and the significance of utilizing these instructional

strategies to increase student achievement and development is not being communicated. Perhaps this lack of focus is attributed to the amount of technology available in their schools. Feasibly, teachers view minimal amounts of technology in the school as a precursor of the importance that they should be placing on technology integration. These interactive learning activities can enhance students' ability to determine relevance in historical events. These are innovative technology instructional strategies that could conceivably lead to more meaningful learning in social studies. These collaborative technology tools could enhance students' communication and critical thinking skills. It provides students with opportunities to apply the concepts and principles learned during instruction to "real-life" experiences. This connection of content to students' personal lives helps students recognize the relevance in world history. Teachers need more exposure to instructional strategies that benefit their students in order to make social studies content more meaningful.

Participants' Perceptions of the Importance of Hands-on Learning

As suggested by the National Middle School Association, teacher participants reported the significance of eighth grade students using hands-on activities. They conveyed that hands-on learning activities enhance students' ability to think critically and effectively collaborate with their peers (NMSA, 2009). Teacher participants also stated the benefit of employing hands-on learning activities to teach world history. When teachers mentioned hands-on activities they used in the classroom, the extent of students employing their higher-order thinking skills was limited. They would allow students to conduct research on topics such as Russia and the Middle Ages to inform them on the proper construction of such items as Faberge eggs and castles. These activities are hands-on but they do not exhibit the depth of knowledge teachers desire for their

students. Teachers articulated that they wanted their students to gain deeper understanding of world history content, but the chosen instructional strategies did not always lead to this end.

Perhaps teachers would expose their students to more active and innovative instructional learning activities if they had more experience with such practices and were informed of the benefits to students.

Trevor's students engaged in the "Roman Newspaper" activity. Students designed a first-person account "Roman Newspaper" detailing the daily routines of Ancient Roman citizens. Trevor concurred with the other teacher participants that students discover additional information on the topic. He stated that this additional information deepens students' comprehension of the material, increases their knowledge and interest, and aids in increasing their motivation. Trevor stated that "Active participation helps students make the connection and makes learning world history meaningful and relevant." Teachers' responses reveal their desire to actively engage their students but, again, the instructional strategies they chose to use in the classroom appeared to be inconsistent with their perceptions. Teachers need inspiration and motivation to discover different ways to provide hands-on learning that is not mundane or requires lower order skills for successful completion.

Participants' Perceptions of Barriers to Technology Integration

Teacher participants reported several barriers to technology integration: technology restrictions, a lack of funding, inadequate training, insufficient resources, and lack of teacher confidence.

Technology restrictions. Darlene and Daniel reported that they faced restrictions on school technology (Ehman, 2002). Darlene stated she used “Ask Benny” videos from YouTube to teach her students basic phrases in Chinese. Her school system began to ban the access of YouTube on the school’s campus. She affirmed these restrictions discourages teachers and decreases teacher creativity. Maybe teachers lose their motivation when the technology tools they attempt to use cannot be accessed. Perhaps they perceive that the lack of importance placed on technology by school officials dictates their level of technology use. Teachers should be provided with adequate training of how to use such technology tools as video streaming and YouTube for implementation in the classroom. Understandably there are inappropriate videos uploaded to YouTube daily; however, if school systems made these training provisions readily available, they could be confident that teachers are using these sites for instructional purposes. If teachers were supplied with more adequate training on appropriate strategies to use in the classroom, these restrictions would be deemed unnecessary.

Inadequate training and resources. Teacher participants acknowledged that inadequate training is a barrier to technology integration (Baylor & Ritchie, 2002; Dias, 1999; Dils, 2000; Ehman, 2002; Hew & Brush, 2007; Zhao, 2007). They also expressed that provisions for professional development were inadequate and insufficient. Maybe the professional development offered contributes to the teachers’ lack of focus on technology integration. Three of the five teachers in this study attested that their technology training was “self-taught.” Perhaps teachers view this lack of importance placed on technology training as a sign of the importance they should place on technology integration. It is apparent that teachers in this study desire more technology and technology integration training but maybe the message they receive through

inadequate training and lack of resources is that technology integration is not important. Perchance the teachers become discouraged and decide they would remain at their current level of technology knowledge and would not locate more innovative technology tools. They are comfortable using *PowerPoint* and *WebQuests* because they received previous training on these applications. This also is consistent with research literature (Hofer et al., 2006), which stated that development and implementation of *PowerPoint* review games could provide an alternative method of assessing students' retention of material in a more interactive and collaborative manner. Teachers ask administration for more technology training but their requests go unfulfilled. Possibly this has diminished their desire to go outside their comfort zone and learn more current technology tools such as wikis and online discussion boards. Teacher participants attested that adequate technology training could provide more opportunities for effective technology integration. Maybe if it was frequently communicated that technology integration is effective in equipping students, teachers would be encouraged to incorporate technology more often. All teacher participants agreed on a lack of funding, which subsequently led to a lack of resources, as a barrier to technology integration (Dias, 1999; Ehman, 2002; White, 1997).

Lack of resources. Teacher participants attested that lack of funding has recently incurred a lack of resources such as updated textbooks, supplies, computers, LCD projectors, document cameras, Smartboards, etc. (Dias, 1999; Hew & Brush, 2007). Darlene, Trevor, and Elijah have one computer lab and the library media center. They expressed difficulty in scheduling time in the computer lab because other teachers also are scheduling classes. Daniel and Caleb have a couple of computer labs, but noted that computers are outdated or have insufficient operating systems. Teacher participants reported that the library has a limited number of LCD projectors,

laptops, and document cameras available to teachers. During the interviews, teachers suggested grants and sponsorships as a possibility to remedy the lack of resources. Only one of the teachers actually worked with a professor from the neighboring university to write educational grants for school funds and resources. Maybe teachers are not knowledgeable of the option of writing grants for classroom and technology resources. Perhaps providing teachers with pertinent information about grant writing would lead to an increase of teachers writing grants to obtain necessary tools. Another teacher suggested the school district get sponsorships from nearby businesses to supply technical equipment and resources such as laptops for students. He expressed his frustration that administration would not take his recommendations seriously. Maybe if teachers were educated in methods to present information to administration in a professional manner, some of the requests for resource options would be granted.

Lack of teacher confidence. Teachers reported that lack of teacher confidence was an additional barrier to technology integration (Hew & Brush, 2007; Rogers, 2000). Teacher participant Daniel stated that “If teachers are not confident in their abilities to use technology, they will not feel compelled to integrate it into their instruction.” One teacher participant, Elijah, did not participate with the online focus group sessions but consented to a face-to-face follow-up interview. Elijah acknowledged being uncomfortable with technology: “To be perfectly honest with you, I think that’s what makes me fearful of technology because I lack the confidence. Not necessarily that I am going to mess something up, but just being able to answer their questions.” Maybe if teachers were provided with balanced education of the benefits and barriers to technology integration and were afforded training opportunities to observe contextual examples of how to effectively incorporate technology, they would gain necessary confidence to integrate

technology more often. If using an instructional strategy causes teachers to feel incompetent, they will avoid using it, which could be a disservice to students.

Implications

Several implications were determined from the results of this study. Because this research study was qualitative and was conducted with a small sample size, findings cannot be generalized to the entire population of eighth grade world history teachers. However, the findings can be useful for individuals involved in education.

Implications for World History Teachers

Innovative instructional strategies and contextual examples of effective technology integration into classrooms can be beneficial for teachers. Educating teachers of benefits and barriers of technology integration can lead to better teacher preparation. Teachers should be knowledgeable of how technology can enhance teaching and learning. They also should be prepared and equipped to proactively face potential barriers. An area of improvement is the development of adequate technology integration training and professional development. Professional development should provide teachers with contextual examples of how to integrate technology and provide sufficient time to plan for its implementation. Increase in effective use of TPACK can be impacted through providing teachers with instructional strategies that effectively integrate technology. Providing teachers with constructive forums to discuss effective methods to integrate technology could be beneficial.

Implications for Teacher Educators

Teacher participants provided recommendations for teacher education programs. They suggested that teacher educators observe social studies classrooms of teachers who are effectively integrating technology and examine the instructional strategies used. Teacher participants reported that this observation could provide contextual examples for pre-service teachers. Teacher participants recommended teaching pre-service teachers how to effectively combine their content, pedagogy, and technology knowledge to instruct their future students. Teacher participants suggested that pre-service teachers have earlier and more frequent field experiences. They perceived this to be beneficial to their professional development. Teacher participants stated that teacher educators should ensure that instruction for technology integration is realistic. They reported that pre-service teachers be provided with examples of technology integration with varying levels of accessibility.

Limitations

Limitations were involved in this research study. For example, a disadvantage of focus group sessions was the difficulty of collecting data. Ensuring the participation of individuals was a barrier to data collection (Krueger & Casey, 2009). During data collection, the researcher faced difficulty facilitating and encouraging all teacher participants' involvement. Only two of the five teachers engaged fully in the online focus group sessions. Lack of participation could have occurred due to teachers' busy schedules, lack of confidence with technology, or inadequate understanding of prompts. The researcher also faced challenges in gathering participants for the face-to-face focus group session. On the scheduled meeting date, only one teacher participant was available to participate. The researcher modified the data collection method, adding an

online focus group session and face-to-face follow-up interviews. Another limitation was the teacher participants were employed with the same school district. The school district is classified as urban. Teachers were employed in schools that were designated as rural, urban, and suburban. Although teachers were selected from diverse school settings, their responses still retained similarities. This is indicative that although teachers and schools are regionally different, commonalities will exist when selected from the same school district. For this reason, it is improbable to generalize the results to the general population. Expansion of this study to include a larger teacher population could potentially increase the generalizability of findings.

Recommendations for Future Research

In future research, a more comprehensive study should be conducted with all eighth grade world history teachers in Hill County. Research could later be extended to eighth grade teachers throughout the state of Alabama. There should be several focus group sessions conducted because conducting multiple focus group sessions could lead to richer data and more opportunities to triangulate results. Data collection from teachers from the entire state of Alabama could be conducted via surveys. Data could be triangulated between surveys, focus group sessions, and research literature. Triangulation has the potential to bring richness to data and make the findings relevant to the field. Results of this study generated further questions to be answered through future research in social studies education such as the impact of student perceptions on technology integration.

Teacher participants' knowledge of technology instructional strategies gave significance to the study. Their perceptions of the impact of technology on students' learning world history provided rich data and relevant findings. Notwithstanding teacher participants perceived they had

insufficient technology training, teachers attempted to be proactive in learning necessary technology integration strategies to effectively teach their students. Teachers' participation in this research study provided additional information to social studies education. They conveyed perceived importance of training teachers and pre-service teachers in technology integration. This technology training is vital for effective technology integration and instructional strategies that enhance students' abilities and skills. Teacher participants also described perceived barriers to technology integration, which include but are not limited to the following: technology restrictions, lack of funding, inadequate training, insufficient resources, lack of teacher confidence, nonexistent administrative support, and lack of student accessibility. This research study provided relevant insight into teacher perceptions and its impact on pedagogical decisions and teachers should take the extra effort and time to obtain training to ensure they are providing the best possible education to their students.

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APPENDIX A
IRB APPROVAL LETTER

Office for Research
Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
R E S E A R C H

February 19, 2010

Bridget Griggs
Department of Curriculum & Instruction
College of Education
Box 870232

Re: IRB#: 10-OR-051 "Eighth Grade Social Studies Teachers' Perception of the
Impact of Technology on Students' Learning in World History"

Dear Ms. Griggs:

The University of Alabama Institutional Review Board has granted approval for your
proposed research.

Your application has been given expedited approval according to 45 CFR part 46.
Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not
limited to, research on perception, cognition, motivation, identity, language,
communication, cultural beliefs or practices, and social behavior) or research
employing survey, interview, oral history, focus group, program evaluation, human
factors evaluation, or quality assurance methodologies

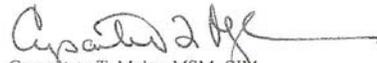
Your application will expire on February 18, 2011. If your research will continue
beyond this date, complete the relevant portions of Continuing Review and Closure
Form. If you wish to modify the application, complete the Modification of an
Approved Protocol. Changes in this study cannot be initiated without IRB approval,
except when necessary to eliminate apparent immediate hazards to participants.
When the study closes, complete the appropriate portions of the Continuing Review
and Closure Form.

Please use reproductions of the IRB approved stamped consent form to obtain
consent from your participants.

Should you need to submit any further correspondence regarding this proposal,
please include the above application number.

Good luck with your research.

Sincerely,



Carpatho T. Myles, MSM, CIM
Director & Research Compliance Officer
Office of Research Compliance
The University of Alabama



152 Rose Administration Building
Box 870117
Tuscaloosa, Alabama 35487-0117
(205) 348-5152
FAX (205) 348-8882

APPENDIX B
SUPERINTENDENT APPROVAL LETTER



OFFICE OF THE SUPERINTENDENT

March 1, 2010

Ms. Bridget Griggs
Department of Curriculum & Instruction
College of Education
Box 870232
Tuscaloosa, AL 35487-0232

Dear Ms. Griggs:

Your request to conduct a study with teachers in the Tuscaloosa County School System is granted. Your proposal is clearly written and you have complied with the requirements of our system. You are approved to begin your study.

I have contacted middle school principals and made them aware of your needs and asked them to consider your request. Since there are many researchers requesting studies at any given time, we leave the final decision to participate to the building principal.

I wish you continued success with your project.

Sincerely,

Barbara V. Spencer, Ph.D.
Deputy Superintendent, Tuscaloosa County Schools

c middle school principals

APPENDIX C
INFORMED CONSENT FORM

INFORMED CONSENT STATEMENT (Survey)

What are the perceptions of Eighth Grade Social Studies teachers of the impact of technology on student learning in World History?

Dear Potential Participant:

You are invited to participate in a research study conducted by Bridget Griggs and Dr. Elizabeth Wilson, from The University of Alabama, Doctoral student and Professor. We hope to learn about your perceptions of the impact of technology on students in Social Studies classrooms. You were selected as a possible participant in this study because you are an Eighth Grade Social Studies teacher and your input would be very helpful.

If you decide to participate, I will attain permission from your principal to commence a session of focus group interviews. There will be two methods of completing the focus group interviews. We will have two sessions that will ask open-ended questions on a web application called Nice Net and there will be one face-to-face focus group session at a central location in close proximity to all participants involved. The online focus group sessions will include threaded discussions for each participant to click on and add their feedback to the question and to the fellow participants. This collaboration with all involved participants will provide richer data for this research study. All of the focus group activities will be completed within a month, so as not to occupy too much of your extra time. An example question is: What do you see as your role as a middle school social studies teacher? For the purposes of data collection and with your permission, the focus group interviews will be audio-taped on a digital voice recorder. After analysis of the data for this research study, this information will be erased. Although the participants will be asked not to discuss conversations held during the focus group sessions with outside individuals, there is still the possibility that this will occur. Your names and school will be substituted with pseudonyms to ensure the anonymity of your identities.

There are no known risks or discomforts associated with your participation in this study. There will be no direct benefits to the participants. Society may benefit in that the information bank is being added to. There are no foreseeable risks to the participants. However, I cannot guarantee that you personally will receive any benefits from this research. There will be no compensation or incentives to the participants.

Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with your school system. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions, please feel free to contact 205-542-2520 or brgriggs@crimson.edu. My advisor's name is Dr. Elizabeth Wilson and her email address is bamawilsons@aol.com. If you have any questions about your rights as a research participant you may contact Ms. Tanta Myles, The University of Alabama Research Compliance Officer, at 205-348-8461 or toll free at 1-877-820-3066.

UNIVERSITY OF ALABAMA IRB
CONSENT FORM APPROVED: 2/18/2010
EXPIRATION DATE: 2/17/2011

Completing and returning the questionnaire/survey constitutes your consent to participate and certifies that you are 19 years of age [19 is legal age of consent in Alabama] or older. Please detach this letter from the survey and keep for your records.

Researcher's signature

Date

UNIVERSITY OF ALABAMA IRB
CONSENT FORM APPROVED: 2/18/2010
EXPIRATION DATE: 2/17/2011



APPENDIX D
FOCUS GROUP QUESTIONS

Focus Group Questions

The questions for the focus group will be directly informed from the literature. In the following table, the focus group questions are correlated with the literature that speaks to its relevance in being included.

1. What do you see as your role as a middle school social studies teacher?
2. What types of strategies do you employ to enhance your students' learning?
3. What is your level of using technology in your classroom?
4. What type of training do you have in integrating technology into the social studies classroom?
5. What are some of the barriers that you face in attempting to integrate technology?
6. What are your beliefs of the benefits of using technology in your classroom?
7. How do you mesh your content, pedagogical, and technological knowledge in teaching your students?
8. What is the status of technology in your school district?
9. How can you make learning social studies meaningful through the integration of technology?
10. How can teacher education programs better equip their pre-service teachers for integrating technology into the social studies classroom?

APPENDIX E
FOLLOW-UP INTERVIEW QUESTIONS

Follow-up questions for Darlene

Strategies

You have spoken about listening to music and creating castles. Are there any technology examples you would like to add?

Barriers

I know that you do some interesting things with technology at the school. What types of responses do you receive as it relates to accessibility in the students' homes?

Training

You spoke of training you received in using Skype. Could you elaborate on the training? Have you used Skype with your students?

Technology

You said that you use technology to conduct research. What types of research have your classes conducted?

Teaching

What are some unique challenges and benefits of the eighth grade social studies teacher?

Technology Status

You talked about what some teachers have in their classroom. What technology do you have in your classroom? You also stated that your school has a long way to go regarding technology. Could you elaborate on this thought?

Benefits

What are your beliefs of the benefits of using technology in your classroom?

Meaningful learning

How can you make learning social studies meaningful through the integration of technology? What are some specific examples of how you made world history teaching and learning meaningful through technology?

Teacher Education

How can teacher education programs better equip their pre-service teachers for integrating technology into the social studies classroom?

Technological Pedagogical Content Knowledge

I don't know how much you already know about TPACK but the main premise is that teachers should be able to intermingle their technological, pedagogical, and content knowledge to create the best possible learning environment for their students. If you search for articles written by Mishra and Koehler, it will give you the whole background. How do you mesh your content, pedagogical, and technological knowledge in teaching your students?

Follow-up questions for Caleb

Strategies

You provided many strategies that you use to enhance your students' learning. What type of technological strategies do you use?

Barriers

You stated that you have access to technology. What types of technology do you have access to? Additionally you spoke of the problem of students not being able to use technology. How do you overcome this barrier? Do they tend to have access to technology in the home?

Training

You said that your training of technology was self-taught. What types of training would you like to see offered? Are you aware of technology training offered by the University?

Technology

You said that you use the LCD projector and computer for research and activities. What types of research have you and your students conducted? What are some examples of activities you have done with the use of the computer?

Teaching

What do you see as your role as an eighth grade social studies teacher? What are some unique challenges and benefits of the eighth grade social studies teacher?

Technology Status

You spoke of the resource of having a smartboard in your classroom. How do you use the smartboard in your classroom?

Benefits

You said that technology gets the students participating in the learning process. Could you give an example when you witnessed this?

Meaningful Learning

You spoke of the use of *WebQuests*. How do you specifically use *WebQuests* with your students?

Teacher Education

You said that the teacher education program needs to make the use of technology realistic. Could you elaborate on how you recommend they accomplish this goal?

Technological Pedagogical Content Knowledge

I don't know how much you already know about TPACK but the main premise is that teachers should be able to intermingle their technological, pedagogical, and content knowledge to create the best possible learning environment for their students. If you search for articles written by Mishra and Koehler, it will give you the whole background. How do you mesh your content, pedagogical, and technological knowledge in teaching your students?

Follow-up questions for Daniel

Strategies

You spoke of your student recreating the events of the Sputnik launch. Could you elaborate on this experience?

Barriers

You spoke of your discontinuing of posting work online due to warnings of potential problems. What were some of the warnings and some of the problems that gave you?

Training

You spoke of the professional development that is offered deals with things you are already proficient at. What types of professional development in the area of technology would you like to see offered?

Technology

You said that students use the computer to complete class projects. Could you provide some examples of class projects your students have completed with the use of technology?

Teaching

What are some unique challenges and benefits of the eighth grade social studies teacher?

Technology Status

You said you would like to see some effort in getting your school caught up. What types of things would you like to see the school do to get caught up?

Benefits

You stated that with technology you can be more creative with assessment techniques. What types of assessment techniques have you used?

Meaningful Learning

What are some specific examples of how you made world history teaching and learning meaningful through technology?

Teacher Education

You gave a great suggestion for the Department of Education to go into the schools to see what teachers are doing. What do you suggest for the College of Education?

Technological Pedagogical Content Knowledge

I don't know how much you already know about TPACK but the main premise is that teachers should be able to intermingle their technological, pedagogical, and content knowledge to create the best possible learning environment for their students. If you search for articles written by Mishra and Koehler, it will give you the whole background. How do you mesh your content, pedagogical, and technological knowledge in teaching your students?

Follow-up questions for Elijah

Strategies

What types of strategies, including technology, do you employ to enhance your students' learning?

Barriers

What are some of the barriers you face in attempting to integrate technology into your social studies instruction?

Training

What type of training do you have in integrating technology into the social studies classroom?

Technology

What is your level of using technology in your classroom?

Teaching

What do you see as your role as an eighth grade social studies teacher? What are some unique challenges and benefits of the eighth grade social studies teacher?

Technology Status

What is the status of technology in your school?

Benefits

What are your beliefs of the benefits of using technology in your classroom?

Meaningful learning

How can you make learning social studies meaningful through the integration of technology? What are some specific examples of how you made world history teaching and learning meaningful through technology?

Teacher Education

How can teacher education programs better equip their pre-service teachers for integrating technology into the social studies classroom?

Technological Pedagogical Content Knowledge

I don't know how much you already know about TPACK but the main premise is that teachers should be able to intermingle their technological, pedagogical, and content knowledge to create the best possible learning environment for their students. If you search for articles written by Mishra and Koehler, it will give you the whole background. How do you mesh your content, pedagogical, and technological knowledge in teaching your students?

Follow-up questions for Trevor

Strategies

What types of strategies, including technology, do you employ to enhance your students' learning?

Barriers

You stated that more technology would allow you to integrate technology more often. What kinds of technology would you like to see made available to you at your school?

Training

You said that you attended some workshops at the University. What types of workshops did you attend? What information and strategies did you bring back from the workshop to use in your classroom?

Technology

You said you do your lessons using *PowerPoints*. How do you use the *PowerPoints* in your lesson delivery? You also spoke of the use of *WebQuests*. What are some other examples of activities your students have completed with the use of the computer?

Teaching

What are some unique challenges and benefits of the eighth grade social studies teacher?

Technology Status

You said there is very little technology in your classroom. What do you have in your classroom?

Benefits

What are your beliefs of the benefits of using technology in your classroom?

Meaningful Learning

You spoke of the experiences that students have that they have never had before through using technology. What types of experiences do they have specific to world history?

Teacher Education

You said the teacher education program should introduce the pre-service teachers to a variety of technology tools. What are some examples of what you would like to see added to their curriculum?

Technological Pedagogical Content Knowledge

I don't know how much you already know about TPACK but the main premise is that teachers should be able to intermingle their technological, pedagogical, and content knowledge to create the best possible learning environment for their students. If you search for articles written by Mishra and Koehler, it will give you the whole background. How do you mesh your content, pedagogical, and technological knowledge in teaching your students?