2022

# Teacher Perspectives on Integrating Technology into Social Studies Instruction

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This is to certify that the doctoral study by

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Walden University
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Abstract

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MA, Purdue University, 1993

BS, Oakwood University, 1978

Project Study Submitted in Partial Fulfillment

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## Abstract

Social studies instruction is vital to connecting students to the world and learning 21st-century skills needed for college and careers. Teachers' knowledge and skills are essential for effective technology integration in instruction. The purpose of this qualitative exploratory case study was to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology in terms of the potential for properly integrating technology in studies instruction. Roger's Diffusion of Innovations theory was the conceptual framework that guided this study. The research questions focused on teachers' interpretations of their knowledge of laptop computers, their communication channels, and organizational support in their endeavors to integrate technology in social studies instruction. A purposeful sample of 10 4th -6th- grade social studies teachers was chosen to participate in the study. Qualitative data were compiled through one-on-one interviews and school-related district-approved documents. The constant comparative method and thematic coding were used to analyze the data. Results indicated that technology engagement was present but not a priority in social studies content instruction. Participants expressed the need for collaborative training in technology integration practices for social studies instruction. Based on the findings, a 3-day professional development training was devised to introduce an embedded practice that provides daily collaboration, modeling, and feedback to address teachers' needs in technology integration in social studies instruction. Positive social change may provide educators with daily embedded collaborative exchanges and effective strategies to enhance student learning in social studies instruction.

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# Dedication

My research study is dedicated to our Lord and Savior, who has saved me and brought me through my life. To my belated mother, Ora Mae Diggens Dennie Woodard, and my sister, Evelyn Marie Dennie Thomas, who were examples of phenomenal teachers, mothers, and mentors throughout my life and teaching career. To my father, brothers, sisters, and family who are the most valuable assets in my life, thank you. This study is also dedicated to my former principal and friend, Ms. Sarah H. Givens, who has been an outstanding example of an administrator and made my teaching years in Indiana the best. I also dedicate this to my dear friends and colleagues Brenda Carson, Kathleen Pliske, and my belated friends Rebecca Vaughn and Cassandra Taylor. I live with their wonderful memories daily. To my children, Cleam Charles Caldwell III, Brittany D. Caldwell, and Victoria A. Pachauer Stephens, thank you for being in my life, being the most wonderful part of it, and believing in me. To Brittany who witnessed the many days I spent working on my study and the nights I went to sleep with my computer in bed, thanks for your support! To one of my dearest friends, Charles C. Johnson, who has always been there for me and our children. To my lifelong friend, Yvonne Smith Dowdy, who taught me to live freely and enjoy life no matter what adversity I face. I miss you Tuggie! Finally, to the wonderful administrators and teachers at Duval County Public schools, specifically, my friends, colleagues, and mentors from Chimney Lakes International Magnet School, you are top educators and innovators.

# Acknowledgments

To whom much is given, much is required. Luke 12:48 KJV

I would like to acknowledge My professors at Walden University for the knowledge provided. I would like to acknowledge my committee, most especially Dr. Heather Caldwell, my committee chair, who continually provided me with the push, encouragement, and mentoring needed to complete my doctoral journey. I could not have done this without your initial compassion and unwavering encouragement and support! I sensed your dedication to my success from the first time I spoke with you as you took the position as my chair when my professor and chair retired. I am grateful for your prompt feedback and dedication that guided me along the path to completion! Thank you, Dr. Heather Caldwell for being there from the beginning to the end.

Dr. A. Focarile, I would like to acknowledge you for stepping in late in the process as my second member which contributed to my moving forward. Special thanks to my URR and my academic advisor who contacted me to check in, to see how

things were going and offer any needed assistance. I would also like to thank Dr. Carol Todd for her expertise in the analysis process that aided me in completing my doctoral work as well. Finally, Dr. Hanson who provided mentoring and encouragement throughout I am incredibly grateful to all. To God be the glory!

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Section 1: The Problem

## The Local Problem

Although a Florida school district's technology implementation plan has provided technology for all schools and a plan for integrating technology in the content areas, some educators are not proficient in incorporating technology into social studies instruction at the 4th-6th-grade levels to meet the various needs of all students. The problem is known to exist based on observations and interviews conducted by the AdvancEd Accreditation Engagement Committee (AEAEC). The AEAEC recommended the district's expectations of teacher competence in technology use be reviewed (AdvancEd Accreditation Engagement Committee, 2018). The district AEAEC report noted that, although local teachers extensively use technology in instruction, there was little evidence of appropriate technology usage. There was also minimal use of technology by students to collaborate, create original projects for learning, problem-solve or conduct research as a part of ongoing instruction in the content areas, specifically social studies instruction (AdvancEd Accreditation Engagement Committee, 2018). The accreditation committee also stated that more training was needed to increase proficiency and relevance in technology use in teaching (AdvancEd Accreditation Engagement Committee, 2018).

Local teachers expressed that technology is not used to differentiate social studies instruction. Instead, technology is used to prepare students for state assessments that evaluate student progress and teacher performance (Teacher A and Teacher B, personal communication, October 20, 2019). Teachers in this study perceived technology

integration in social studies instruction in diverse ways. Teachers use technology for student reports, as reference tools, and as a resource for projects; thus, students are not always directed to engage in personal research and collaborative endeavors related to social studies (Instructors A, B, C & D, personal communication, October 20, 2019). Teachers also stated that there are 30-minute computer lab periods for classes to work on designated practice programs in language arts and math; otherwise, the labs are used for testing (Instructors A, B, C & D, personal communication, October 20, 2019). Social studies teachers are not awarded the same lab time for social studies instruction. Based on a limited number of personal communications, there is a need to explore teachers' proficiency in integrating technology in social studies instruction.

The Florida district mandates teachers to use technology, specifically laptop computers for IReady math and reading programs and a literacy-based program, Achieve 3000, that incorporates social studies with language arts and reading (duvalschools.org, 2018). Students in grades 4$^{th}$ and 5$^{th}$ have integrated social studies lessons through these programs. Students in grades 6$^{th}$-8$^{th}$ are required to take the Civics End-of-Course Assessment based on the Florida state standards to measure yearly progress and achievement. According to the Florida Department of Education k-12 assessment, 49% of 6$^{th}$-8th-grade students across the district scored at an achievement level 3 out of 5, and 51% achieved below level 3 (Snyder et al., 2019). The most recent civics End of Course (EOC) assessment revealed 26% of the students scored below level 3, 25% of the students scored in a range of three in achievement level, and 28% scored at level 5 based

on a lower number of students taking the test in the last year of testing before the COVID 19 pandemic (Snyder et al., 2019).

For several years, the Florida school district that is the focus of this study recognized the critical role technology plays in providing students with 21st-century learning and skills needed to prepare for their future. The district funded technology initiatives and projects to make the transition to digital learning adopted the ISTE technology standards that connect technology to instruction and devised a technology implementation plan that provides professional development and support according to the technology needs of teachers (Duval County Public Schools Technology Plan, 2018). As a result of the district's efforts, teachers are actively using technology; however, the integration of technology, which provides student-centered learning is still not evident in the district's classrooms.

The lack of proficiency in integrating technology in instruction was also a challenge in the educational field. Kena et al. (2015), noted that only 40% of elementary school teachers across the United States access computers for instructional purposes. An even smaller percentage of teachers use computers for relevant instruction such as research or collaborative projects (Kena et al., 2015; Snyder et al., 2019).

The integration of technology in social studies instruction is vital for students to gain 21st-century skills. Technology-infused instruction provides differentiation in social studies and other content areas and can offer teachers alternatives to teach diverse learners. Differentiation of instruction provides diverse ways to learn, process, and make sense of concepts and produce products that make students become lifelong learners

(Prast, 2018). Finally, technology integration can also help teachers transform their classrooms, enabling them to customize the curriculum to students' needs and provide opportunities to motivate students to learn and to grow (Tomlinson, 2001). Therefore, there was a need for an increased understanding of how teachers perceive technology integration in social studies instruction. Understanding barriers teachers encounter will lead to workable solutions to help teachers progress towards proficiency in teaching with technology and provide differentiation for diverse students for optimal student learning and achievement

**Evidence of the Problem in the Literature**

The International Society for Technology in Education (ISTE) noted that technology has been the force that has transformed student learning as well as how learning should occur in educational settings throughout the world. The National Educational Technology Standards (NETS) for teachers emphasized the critical role technology continues to play in redefining teachers' teaching practices worldwide (Slusher, 2018).

The U. S. Department of Education, National Center for Education Statistics, noted only forty percent of elementary school teachers access computers for instructional purposes. An even smaller percentage of teachers used computers for relevant instruction, such as research or collaborative projects (Snyder et al., 2019).

Several studies indicate teachers' lack of technology integration in instruction and learning (Hsu, 2016; Kimmons et al., 2015; Scherer et al., 2015). Green et al. asserted that teachers are not integrating technology into instruction for reasons that vary based on

the school environment, exchanges with colleagues, support of the social system, or self-efficacy. DeCoito and Richardson (2018) found that most teachers viewed technology as a tool rather than an embedded part of the learning process. Numerous barriers exist, such as lack of social studies resources, training, support, and personal attitudes towards technology. Research has provided various barriers teachers experience in integrating technology into social studies instruction (Hsu, 2016; Linder, 2017; Okeyere-Kwakye et al., 2016; Weber & Waxman, 2015).

The integration of technology in instruction is vital for students in gaining the required 21st-century skills needed in today's world. An influx of diverse cultures in today's schools will require differentiation of instruction and learning that technology can provide (Weber & Waxman, 2015). Technology-infused instruction in social studies and other content areas can offer viable alternative ways to learn, process, and make sense of concepts and produce products that make students become lifelong learners (Tomlinson, 2001). Research has shown (Bisagno et al., 2018; Hsu, 2016; Khodabandelou et al., 2016; Kimmons et al., 2015; Knezek et al., 2015; Matheson, 2018; Prensky, 2018) that technology can also help teachers transform their classrooms, enabling them to customize the curriculum to the needs of each student and provide opportunities to motivate students to learn and to grow. The integration of technology, which provides student-centered learning, is not evident in the district's classrooms. This study could provide information on determining relevant training needed for teachers to integrate technology in instruction to promote 21st- century student-centered learning for improved student learning experiences. Therefore, there was a need for an increased understanding of how

teachers perceive technology integration in social studies instruction. Understanding barriers teachers encounter will lead to workable solutions to help teachers progress towards proficiency in teaching with technology and provide differentiation for diverse students for optimal student learning and achievement.

## Rationale

Research has shown the increase of technology innovation in schools and the issues associated with the use of technology to enhance student achievement (Bisagno et al., 2018; Hsu, 2016; Khodabandelou et al., 2016; Kimmons et al., 2015; Knezek et al., 2015; Matheson, 2018; Prensky, 2018). Makoelle and Somerton (2019) noted that using technology in the classroom is varied and not focused on integrating technology in instruction and learning. The purpose of this qualitative exploratory case study was to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology in terms of the potential for properly integrating technology in studies instruction. My prior years of teaching social studies provided me with the experience of working with other elementary social studies teachers with various instructional practices and insights on social studies and technology.

The study will provide increased awareness and understanding of teachers' competencies, knowledge, and perceptions regarding integrating technology into the social studies curriculum and its effect on instructional practice (Farisi, 2016). The topic is essential to the field of education because technology integration in social studies instruction and learning strongly supports the development of three core skills of the 21st-century, including learning and innovation skills; information, media, and

technology skills; and life and career skills (Farisi, 2016). The study is significant for instruction and learning to provide alternatives to integrate technology into the learning experiences of all students including diverse learners. This research is essential to provide teachers with prerequisite skills for the instruction of social studies with technology, which will enhance student achievement (Bataineh & Anderson, 2015).

## Definition of Terms

The following terms are defined and cited to provide clarity for readers of the research study.

*Information and Communication Technology (ITC)*: The convergence of information and networking that stresses the role of unified communications and the integration of telecommunications and computers, as well as necessary enterprise software, middleware, storage, and audiovisual systems, which enable users to access, store, transmit, and manipulate information (Uluyol & Sahin, 2016).

*Mastery of Active and Shared Learning Processes for Techno-Pedagogy (MASLEPT*): school-based teacher professional development model for technology integration inspired by a community of practice (Ndongfack, 2015).

*Substitution, Augmentation, Modification, and Redefinition (SAMR)*: a model that provides a framework for teachers designed to improve emerging technologies into daily lessons (Hilton, 2016).

*Technology Acceptance Model (TAM)* a theory that explains the factors influencing the intention to use information technology to improve performance in organizations (Joo et al., 2018).

*Technology Integration:* The use of technology as a tool for learning incorporating pedagogical principles of active learning and collaboration to improve instruction (Fenton, 2017).

*Technological Pedagogical Content Knowledge (TPACK)*: a framework designed to synthesize content, pedagogy, and technology to assist teachers in delivering effective technology-infused instruction (Hilton, 2016).

## Significance of the Study

Research continues to offer evidence of a gap between technology innovation and technology implementation in public schools (Belagra & Draoui, 2018; Ruiz, 2019). Despite the increase in technology in school classrooms, teachers still report minimal use of technology during instruction (Doğan & Adams, 2018). This study explored how social studies teachers perceive technology and the practices related to computer integration in an urban school setting. The U. S. Department of Education's core principles state that students' learning is enhanced with technology, and the development of technology skills will promote productive citizenship (Slusher, 2018). The National Council for Social Studies also promotes the use of technology in instruction to prepare students for 21st- century skills needed to further their education. Weber and Waxman (2015) noted that teachers should become knowledgeable about the role technology has in classroom instruction to facilitate 21st-century learning. The Florida school district that is the focus of this study devised a technology implementation plan that provides professional development and support to address teachers' technology skill needs (DCS TIP). However, further research is needed to continue to explore the nature of preparing

teachers to integrate technology in instruction (Weber & Waxman, 2015). The study was significant because of the importance of understanding the barriers teachers encounter in instruction with technology. The information gained can improve teachers' proficiency and facilitate student learning of 21st-century skills for student improvement and achievement. The study addressed the gap in knowledge on the effects of technology integration in social studies by providing an understanding of the processes of successful technology integration and offering insight into strategies or appropriate professional training needed for effective instruction with technology in social studies classrooms. This study was significant for the school district to use this information to develop and provide professional development for social studies teachers. The study may also provide data that teachers can use to instill positive change for students in learning 21st-century skills needed to prepare for further education.

The study results may be significant to other stakeholders, including administrators, trainers, school boards of education, community leaders, and local political leaders. Teachers, administrators, and district leaders can use the results to formulate ways to improve technology integration. The research can provide professional development designers with necessary information based on teachers' perspectives to create more effective training programs.

The study results are significant to administrators in offering an understanding of the importance of their role in implementing change. Finally, the research is significant to the field of leadership in providing an example of the importance of stakeholder perspectives in promoting change (Doğan, & Adams, 2018)

## Research Questions

The research questions that guide this qualitative study explore why teachers in an urban elementary school district are not demonstrating proficiency in instructional technology use in terms of the potential for integrated technology for social studies instruction. Based upon three of the areas of Rogers' (2003) Diffusion of Innovations theory, Knowledge of the Innovation, Communication Channels, and Social System, the research questions addressed teachers' perspectives regarding integrating technology in instruction.

RQ-1 How do 4th-6th-grade teachers demonstrate their knowledge of the innovation regarding technology integration in social studies teaching and learning?

RQ-2 How do 4th-6th-grade teachers describe their communication channels or how teachers relate to others in their educational environment regarding integrating technology into social studies teaching and learning?

RQ-3 How do 4th-6th-grade teachers describe the support of their social system or organization regarding integrating technology into social studies teaching and learning?

## Review of the Literature

The purpose of the literature review was to provide a critical review of current research on technology integration, specifically in social studies, and the barriers teachers face that may prevent or discourage the use of technology in social studies instruction. Rogers' Innovation Diffusion theory provided a framework for understanding the factors that influence teacher adoption of technology and factors that may increase or decrease

use. Rogers' theory explains how innovations spread and are adopted within an organization.

## The Conceptual Framework

Rogers' (2003) Diffusion of Innovations Theory was the framework used to explore the problem regarding the lack of proficiency in technology integration in social studies instruction and learning. Wani and Ali (2015) described Rogers' explanation of diffusion as a process by which an innovation is introduced through communication channels over time among members of a social system. The Diffusion of Innovations theory has four key components: the innovation, communication channels, a given time, and a social system (Rogers, 2003; Sahin, 2006). According to Sahin (2006), Rogers' theory is a widely used theoretical framework in the area of technology diffusion and adoption used in most educational settings. The research questions were formed using Roger's components of the Innovation Diffusion Process. The research questions addressed the knowledge of the innovation, the communication channels, and the support of the social system of teachers in schools the Florida district that was the focus of this study. The components of Rogers' theory that pertain to the integration of technology in social studies instruction were explored to fulfill the study's purpose. Therefore, Rogers' Diffusion of Innovations theory was appropriate to ground the current study.

Rogers describes innovation as an idea, practice, or project that is perceived as new by individuals. Rogers states that the newness of innovation is related to knowledge, persuasion, and decision-making. Communication systems, channels through which users share information, allow the information transfer among people (Scherer et al., 2015;

Wani & Ali, 2015). The communication system is needed to share information about innovations through a social system. This study explored 4th through 6th-grade social studies teachers' communication channels to understand how teachers related to one another in terms of collaborating or sharing successes and challenges of integrating laptop computers in social studies instruction. According to Wani and Ali (2015), time is a measure of how long it takes the innovation to diffuse into an organization and become adopted. The time of adoption is based on an organization's view of the importance of innovation. In this study, time is not addressed; however, the yearly progress in the use of the innovation in improving the knowledge and skills of students towards technology and the improvement of skill in technology integration in instruction is considered the most important goal. The social system or organization has a common purpose of accepting innovation and sharing information about innovation through communication channels (Wani & Ali, 2015; Xiong et al., 2016). The social system provides support in a school system to assist users in becoming successful users of the innovation. Social systems provide various support such as moral support, teaching resources, technical support, and training through professional development to enable users to adopt an innovation. In this study, the social system of a Florida school district was explored to gain an understanding of the types of support offered to teachers in the context of integrating technology in social studies instruction.

Within the framework of Rogers' Diffusion of Innovation theory is Rogers' Innovation-Decision Process, the process educators experience in choosing to adopt or reject an innovation. This process involves five steps: (1) knowledge, (2) persuasion, (3)

decision, (4) implementation, and (5) confirmation. The innovation-decision process may begin with some previous conditions brought in by adopters such as prior practice, felt needs or problems, innovativeness, and norms of the social system (Hadorn et al., 2016; Rogers & Sahin, 2006; Wani & Ali, 2015). The knowledge stage, the first stage in the innovation-decision process, which is a part of communication channels, is when individuals learn of the innovation's existence and seek further information such as how and why the innovation works (Sahin, 2006). The authors state that during the knowledge phase, barriers to the use of technology exist because teachers lack the vision of why and how to integrate technology in instruction. The characteristics of the decision-making unit: socioeconomic factors, personality, and communication behaviors of adopters must also be considered during the knowledge phase (Rogers, 2003).

The persuasion stage is known as the affective or "feel-centered" stage in which individuals develop positive or negative feelings about the innovation based on the amount of knowledge gained and social reinforcement from colleagues or peers (Sahin, 2006). The Sahin 2006) asserts that individuals usually are persuaded to accept or reject an innovation based on trusted friends or colleagues' evaluations and use of innovations rather than outside information from experts. The persuasion stage involves perceived characteristics of the innovation or technology, such as the five attributes of the innovation: relative advantage, compatibility, complexity, trialability, and observability (Sahin, 2006; Wani & Ali, 2015).

At the decision stage, an individual decides to adopt or reject the innovation based on the experiences during the knowledge and persuasion stages (Sahin, 2006). The

author states that during this stage, an innovation can be adopted and later rejected based on a discontinuance decision. The implementation stage is the time when an innovation is used in practice (Sahin, 2006). During this stage, reinvention occurs, allowing individuals the opportunity to change or modify the innovation during use (Sahin, 2006). The author states computers have various applications making them more open to reinvention or change.

Finally, the confirmation stage occurs in which the individual seeks support for the decision to adopt the innovation. According to Sahin, an individual's attitudes become more critical at this stage, depending on the support given and the attitude of individuals adopting the innovation. Each of the stages were explored with the participants in the study to understand the process of technology integration into social studies instruction.

Rogers' Innovations Diffusion Theory has been found to have some limitations; thus, the theory has been used in conjunction with other theories. Wani and Ali used the Innovation of Diffusion theory and the Technology Acceptance Model to analyze India's smartphone adoption. The authors' research aimed to review the Innovation Diffusion theory as a framework for studying smartphone adoption and diffusion. However, the Innovations Decisions Theory has been used as a conceptual framework in many previous research studies (Kemp et al., 2019; Primeau, 2019). The authors found limitations in using the framework by scholars, practitioners, and the business community. Limitations discussed included variances in adoption patterns and rate of adoption, the static nature of adopters' categories, and difficulty identifying the stages of

adoption (Kemp et al., 2019; Wani & Ali, 2015). The researchers also noted that the IDT theory was combined with other theories in several studies to understand technology integration better.

**Review of the Broader Problem**

The purpose of this literature review was to provide a critical review of current peer-reviewed research on technology integration, specifically in social studies, and the barriers teachers face that may prevent or discourage the use of technology in social studies instruction and learning. The literature review covered the barriers that prevent the Florida district teachers from becoming proficient in integrating technology in social studies instruction, which should be addressed to maintain the district's efforts to produce technologically competent 21st-century productive citizens.

The International Society for Technology in Education (ISTE) asserts that the emergence of technology has reshaped the essence of learning as well as a pedagogical practice in educational settings throughout the world. Given the role technology and the National Technology Standards play in guiding systematic change in schools, creating digital learning environments to prepare students for a global society, and providing professional digital models for the workplace, it is imperative that the Florida school district that was the focus of this study expedite its efforts to integrate technology in all content areas in the district. Utilizing technology for daily practice and remediation does not meet the standard of preparing students for their future. The practice of integrating technology in instruction and learning in social studies involves research, the creation of projects, and other technology-infused activities that promote student-centered learning.

The International Society for Technology in Education noted that technology's role is to transform instruction and learning practices worldwide. According to Bloodman (2014), the substantial change in the dynamics of the world economy and job market demand that schools incorporate technology to prepare students to become competitive, productive, and efficient learners and thinkers.

A review of the current literature on technology integration and the necessary skills needed to integrate technology in instruction was conducted. The research was derived from the Walden University library and the Purdue University Northwest library. I referenced peer-reviewed journals, scholarly books, and dissertations from Walden University library, along with some educational websites. My search also involved using the librarian's recommendations to use Google Scholar to widen my search for peer-reviewed articles within the dates needed. I accessed Academic Search Complete, Eric Education Source, the Florida district website and FDOE, and the EBSCOhost-eBook collection to review the literature on teachers' perspectives on integrating technology into social studies instruction and learning. The following key terms were used to search for peer-reviewed articles: *technology integration, technology knowledge, social studies and technology, technology in instruction, teaching with technology, benefits of using technology in instruction, TPACK, social system, communication channels in education, and use of technology in social studies instruction.* The major themes identified in the literature review included Roger's Diffusion of Innovations, the importance of using technology in social studies instruction and learning, and factors that affect the integration of technology in instruction and learning. The subthemes included in the last

theme were Technological Pedagogical Content Knowledge (TPACK), social system support, communication channels, professional development, and barriers and different views on technology integration. Technological Pedagogical Content Knowledge (TPACK) was a subtheme chosen as one of the factors that may affect the integration of technology. The TPACK framework is essential for connecting social studies and other content areas with technology (Beriswill et al., 2016; Herring et al., 2016; Van Vaerenewyck et al., 2017). The TPACK framework is the connection between technology, practice, and knowledge of content needed for successful technology integration and aids teachers in choosing technology to suit content and practice in teaching.

**Technology in Social Studies Instruction**

Research has shown the link between technology and social studies instruction (Tarman et al., 2019; White, 2018). Matheson (2018) asserts that technology is purposeful when paired with social studies instruction and learning, allowing students to apply technology skills with social studies content to create projects and display learning. The use of technology in social studies education offers students ways to explore a wide variety of ideas and create student-centered projects (Belagra & Draoui, 2018; Hilton, 2016; White, 2018). Hilton asserts that educators can construct experiences and responses to meet the needs of the world community through social studies. According to Hilton, social studies students are required to retrieve information from many fields, including history, civics, geography, literature, economics, philosophy, sociology, and even science and mathematics.

Technology can enhance the teaching of social studies if appropriately integrated into social studies lessons. According to Farisi (2016), technology is a suitable pathway to exploring social studies' "integrative nature." Technology provides teachers with ways to differentiate instruction and offers students ways to show knowledge learned (Farisi, 2016).

Students today require different modes of instruction in social studies to excel, gain and apply the knowledge needed to adapt to a changing global society (Byker, 2014). Byker (2014) states that constructivist strategies with the use of technology as a tool for increasing inquiry and authentic learning foster global and local interaction build on students' prior knowledge, enhances knowledge with meaningful assessment, and cultivates students' independence and creativity in the social studies classroom. The use of technology in social studies allows access to a multitude of information and experiences needed in a changing global setting (Byker, 2014).

Curriculum integrated with technology application supports a broader view of social studies involving multidisciplinary issues and authentic learning (Bataineh & Anderson, 2015; Sahin, 2006; White, 2018) and enhances social studies' teaching from a global perspective (Hilton, 2016). Hilton concurred with Bataineh & Anderson in the value of technology integration in social studies, as evidenced by the discussion of the development of critical thinking skills as the purposeful use of technology in social studies. Hilton also stated that when teachers engage students in learning experiences involving technology, students gain critical thinking skills.

Pairing technology with social studies is essential to instruction and learning. First, educators must be informed to prepare students to address a rapidly changing global society. Technology is needed to keep up the pace of rapid changes in education and the world. Second, teachers must find innovative techniques and modes of teaching to engage today's students. Teacher-centered instruction must change to student-centered instruction with the teacher as a facilitator of learning. Third, technology integration in social studies can enhance student time on task, promote constructivist project-based learning, and allow students to gain ownership through a technology-based learning experience (Bisagno et al., 2018; Hilton, 2016).

**Technological Pedagogical Content Knowledge (TPACK)**

Technological Pedagogical Content Knowledge (TPACK) is viewed in research as a necessary part of successful technology integration in the classroom. According to Byker, TPACK links to content, instructional practice, and technology in an educational context. Byker (2014), Miguel-Revilla et al. (2020), and Beriswill et al. (2016) agree that the TPACK model aids teachers in connecting social studies and other content areas with technology successfully. Understanding the TPACK framework is essential to teacher practice in integrating technology into social studies instruction.

TPACK aids educators in a better understanding of the various levels of technology integration. Herring et al. discussed the TPACK framework, its value, and its importance for aiding teachers in social studies instruction and other content areas. Their research goal was to understand the relationship between teachers' knowledge, thinking, and observable practices to integrate technology into instruction. Herring et al., 2016

concur with Byker, (2014), Van Vaerenewyck et al., (2017), and Beriswill et al., (2016) that TPACK aids educators in a better understanding of the types of knowledge needed to integrate technology into instruction and assists in the development of better techniques for describing how technology-related professional knowledge is implemented and substantiated in practice.

The knowledge of TPACK skills aid teachers in the improvement of technology integration in instruction. Harvey and Caro (2017) assert that teachers should learn TPACK skills to move beyond practices that use technology as an extra resource and progress toward technology integration into content areas by connecting technology with practice. TPACK knowledge offers an understanding of how technology supports content in teaching.

Researchers have different views on the nature of the TPACK process. Olofson et al.'s (2016) multiple case study on teachers' construction of knowledge through the TPACK process revealed the TPACK framework itself is limited in use and proposed "TPACKING," which involves teachers constructing knowledge for teaching in a setting in which technology is present through a constructivist lens. The authors stated that factors such as school culture, grade level, professional development programs, interactions, or physical space could affect teachers' TPACK experience. There are other ways the TPACK process can be applied for successful technology integration.

Analyzing technology to suit students' learning needs is a positive step in integrating technology in instruction. Koh et al. (2015) addressed how teachers' TPACK knowledge can be applied through design thinking. The authors assert that teachers

should be competent in using technological pedagogical content knowledge (TPACK) to design lessons for 21st-century learners. Design thinking involves analyzing technology to determine the suitability of technology to students' learning needs.

Researchers have discovered misconceptions teachers have about the TPACK process. Byker described teachers' level of TPACK awareness based on an instructional technology lesson in a social studies methods course. The process was confusing among the study participants, and recommendations were made for specific training about the relationship between technology, pedagogy, and content knowledge (Byker, 2014; Voithofer et al., 2019; White, 2018). Martin (2015) concurred with Byker, and Buss et al., on teachers' misunderstanding of TPACK knowledge and stated teachers need support from leaders and fellow teachers to gain confidence from exposure, modeling, and a technology-embedded curriculum. The study offered evidence of the lack of understanding teachers have concerning the TPACK process.

Teachers should gain an understanding of learning theories that provide a rationale for choosing and using technology to support instruction and learning. Voithofer et al. revealed that many teachers did not consider nor understand the relationship between technology and pedagogy and require training in infusing technology into their lessons. Continual exposure to theory and practice may become beneficial to teachers' improvement in technology integration.

Experience plays a role in the frequency and effectiveness of technology integration in instruction. Koh et al. found that teachers who learned TPACK earlier in

their careers were more successful with technology integration. Teachers with less TPACK knowledge displayed less confidence in using technology in instruction.

Davidson et al.'s (2014) findings suggested that teachers' limited use of technology resulted from limited training or knowledge of the TPACK process.

Hong and Stonier (2015) also addressed integrating technology into teaching and effective use of the classroom curriculum. Pedagogy and content knowledge were addressed. Hong, Stonier, and Hilton suggest TPACK, technological, pedagogical, content knowledge are vital parts needed for effective technology integration in educational settings. Although success in training, knowledge, skill, and implementation are addressed, motivation to learn and willingness to use technology regularly were not important in the previous studies (Hilton, 2016; Hong & Stonier, 2015; Liu et al., 2018b).

**Social System**

The support of a social system is an essential factor in motivating teachers to integrate technology into content areas such as social studies. Social systems consist of an organization or any other external or internal influences (Uluyol & Sahin, 2016). In the k-12 schools, support may be in the form of moral support from colleagues in the building, technical support given by experienced professionals, and district support through professional development. Martin (2015) asserts that support from the building administrator and other colleagues is essential for building confidence in technology use.

Training and support that provide teacher interaction can result in motivation to use technology in classroom instruction. Uluyol and Sahin (2016) investigated elementary school teachers' Information Communication Technology (ITC) use. Based

on teacher participants in the study, the authors found that teachers expressed a need for more opportunities to practice integration, more moral support, and collaboration from peers, administrators, and the district to motivate them towards improvement. When opportunities are given for teachers to practice integration skills and collaborate with other teachers to problem solve and discuss new techniques, teachers learn from each other, strengthen technology skills, thus promoting more use of technology in instruction.

Collaboratively working together can promote meaningful technology integration in instruction. Thoma et al. (2017) researched a Technology Integration Planning Cycle (TIPC), which drew on teachers' TPACK needed to plan instruction integrated with technology. The TIPC involved teachers in identifying an instructional goal, determining instructional approaches, choosing appropriate technological tools, examining the selected technology constraints, and delivering and reflecting on instruction in PLCs (Kazemi & Resnick, 2019; Thoma et al., 2017). The technology integration planning cycle was a useful tool in that it allowed teachers to work collaboratively and learn from one another.

Administrator support is needed to create a culture of technology integration. (Vatanartiran & Karadeniz, 2015). To investigate the needs and challenges of K-12 teachers Vatanartiran and Karadeniz (2015) developed a technology integration plan using a mixed-method design. The study showed teachers needed support from administrators in the following ways: modeling of the use of technology, creating a culture of technology integration, adequate technology resources, development of teachers' TPACK competencies, and creating opportunities for collaboration among

teachers (Mangipudi et al., 2019; Vatanartiran & Karadeniz, 2015). Harvey and Caro (2017) agreed with Vongkulluksn et al. (2018) and Willis et al. (2018) on the variables that impact the implementation of technology being influences by others through collaboration, competency in knowledge, and skill, and support of administrators.

A support system that provides positive beliefs about technology in instruction can motivate teachers to embrace the importance of integrating technology into classroom instruction (Rogers, 2003). Vongkulluksn, et al. (2018) studied how teachers' perceptions of technology impact how teachers internalize support in terms of access to technology, support, and collaboration among other teachers in their building. Teachers exposed to learning skills related to technology and gained increased knowledge and skill in integrating technology into instruction had improved positive beliefs about using technology in instruction (Vongkulluksn et al., 2018).

**Communication Channels**

According to Rogers (2003), a communication system is needed to share information about innovations through a social system. Wani and Ali state that interpersonal communication expedites the diffusion of innovations (Kann-Rasmussen, 2019; Maslo, 2019; Wani & Ali, 2015). A good rapport among educators, administrators, and others in the support system about technology use can promote confidence and regular use of the innovation (Capogna, 2016). Communication is an integral part of the innovation-decision process.

Structured interpersonal relationships among groups bring about a positive collaborative environment. Capogna (2016) suggests that the quality of communication

and interaction among teachers and others in the support system ensures the quality of the teaching-learning process. From communication and interactions among colleagues, teachers derive confidence and skill to complete individual tasks such as integrating technology into subject areas. In education, effective communication is needed for the many facets of the decision-making process.

Communication and collaboration are significant factors in the prediction of student achievement and job satisfaction. Reeves et al. (2017) assert that the time spent in lesson planning among teachers and visiting other classrooms for observations significantly affected student achievement in the United States. Teacher job satisfaction rates increased due to regular communication and collaboration (Goode et al., 2018; Reeves et al., 2017). Sharing alternative ways of using technology in instruction allows teachers to reflect on their practice and adjust in instruction.

Various communication types with colleagues in and out of the classroom provide teachers with valuable opportunities to gain experience and change. Van Gasse et al. (2016) assert that professional learning and discussion encourage new or confirmed ideas, change ideas about oneself, change behavioral practice intentions, and turn new or confirmed ideas into practice. Teachers' consciousness of their colleagues' teaching styles encourages teachers' attempts to improve their practices (Cachay-Huamán, & Ramírez-Hernández, 2019; Van Gasse et al., 2016). Communication and sharing practices in technology use can positively affect teachers who do not proficiently use technology in instruction.

Communication by sharing with others motivates teacher practice. Shaban and Egbert (2018) discussed a professional development model based on Rogers' Diffusion of Innovations theory. The authors assert that when teachers are given time to share their experiences and knowledge about what they have learned about education technologies, their knowledge can be persuasive to others. Planning for regular meetings to communicate about practice enables continuous open communication. Teachers' adoption decisions can be based on their perceptions of technology attributes, but open communication can expel some of the negative perceptions and doubts about technology use.

Teacher interaction in the form of discussions and reflection is a part of positive communication that leads to learning. Ndongfack (2015) suggested using the MASLEPT model to train elementary teachers on TPACK knowledge. The author purports that teacher discussion, reflection, and explanations are necessary for positive learning outcomes filtered back to students. A clear understanding of technology integration through effective communication can result in the optimal use of technology in instruction.

Positive communication creates a culture of technology integration for teachers and students. Vatanartiran and Karadeniz (2015) stated opportunities for communication and collaboration among teachers, such as sharing and reflecting on acceptable practices, peer coaching, and mentoring, promote an increase in the use of technology in instruction. Teachers become more motivated by sharing and discussing innovative ideas

and changing what may not work in practice (Vatanartiran & Karadeniz, 2015). Communication amongst teachers improves student outcomes.

**Professional Development**

Professional development programs are advantageous to teachers in promoting confidence in technology use and adjustments in instructional strategies to optimize student learning. Bhatt (2017) investigated the impact of an Information Communication skills development program and online learning on teachers' beliefs about technology integration. Bhatt noted that not only do these training programs promote confidence in practice, but skill development programs aid pre-service and in-service teachers in staying abreast of the latest advances in technologies relevant to instruction.

School-based professional training targets teachers' individual needs as well as allowing teachers to work together collaboratively. Ndongfack (2015) researched the MASLEPT model, a school-based professional development model used to train elementary school teachers on technology, pedagogy, and content. The MASLEPT model has three significant components:

1. The learning needs of participants are assessed to pinpoint instructional targets.
2. Lesson study involves teachers working in groups to design and implement lessons over time and receive feedback to improve practice.
3. Teacher interaction involves teachers constructing new knowledge, working collaboratively and reflecting on practice that leads to positive changes in practice (Carpenter, 2019; Ndongfack, 2015).

Training programs geared towards teachers' instructional challenges effectively motivate teachers to embrace technology and construct integrated lessons geared toward students' instructional needs.

The implementation of technology-integrated lessons is vital to teacher practice. White (2018) researched professional development that helped teachers embrace and integrate modern technology tools and applications into their practice. Collaboration partnerships in technology were formed, and teachers expressed the value of implementing technology in instruction and learning.

Technology integration in instruction and learning encourages teachers' and students' creativity and allows them to share knowledge with their peers. Linder (2017) and Thoma et al. (2017) found that most teachers used technology to transmit information and deliver instruction rather than encouraging students' creativity and collaboration. Teachers were exposed to methods to integrate technology through professional development training to promote creativity and collaboration among students and themselves.

Professional development models involving technology integration offer teachers methods to differentiate instruction and learning. Waid (2015) explained a flipped learning model to differentiate instruction that involved technology integration. There are four pillars of flipped learning: establish a learning environment, establishing a student-centered learning environment, determining higher-level learning activities, and assuming the role of facilitator for students as they learn (Waid, 2015). The author found that the participants who received flipped learning principles and used the training in

instruction experienced increased student engagement and learning levels. Teachers were more prepared to integrate technology into instruction while facilitating student learning (Braund & Soleas, 2019; Thoma et al., 2017; Waid, 2015).

Professional development training provides collaborative support, which aids teachers in improving practice. Liu et al. (2018a) examined collaborative professional development to support teachers' learning techniques in technology-infused instruction. Teachers could change teacher-centered instructional practices to student-centered instruction using TPACK applications (Liu et al., 2018a).

Professional development has been proven effective in developing teachers' overall disposition, confidence, competence, and usage of tablets and other technology. Winslow et al. (2014) also researched the benefits of a collaborative technology integration professional development training program. Formal technology integration training, best practices in technology integration, and support for teacher participants were offered to ninety-six classroom teachers across a local school district by a university graduate program (Winslow et al., 2016). As a result, teachers were more confident in their application and use of technology and how technology is integrated into instruction (Winslow et al., 2016). Broek and Pagliarello (2017) and Obara et al. (2018) concur with Winslow et al. (2016) that support through professional development training provides confidence in the application and use of technology in instruction.

Several technology models have been designed and evaluated in classrooms in K-12 schools. Liu et al.'s (2017) model addressed the teacher and school-related variables.

Liu et al. (2017) concurred with other researchers that support, mentoring, and a complete infrastructure were equated with successful technology integration.

Professional development training requires teacher focus to become effective. Brenner and Brill (2016) studied a four-month professional development program to aid teachers in integrating iPads into instruction. The training was followed by interviews to gain the perspectives of the teachers involved. Results found were that teachers were more interested in teaching content than learning methods to integrate technology into their lessons and teachers felt the use of iPads would not meet the needs of multiple students (Brenner & Brill, 2016). Carpenter (2019) targeted professional development is useful in gearing teachers towards student-centered instructional practices paired with technology in instruction.

Targeting teachers' training needs results in practical professional development experiences. Brenner and Brill (2016) suggest that professional development training should be geared toward teachers' specific needs allowing for practice, reflection, and collaboration. Brenner and Brill found positive practices that included modeling, reflection, and experimenting with technology integration in professional development programs to uncover practices that promote or inhibit technology integration in early career teachers. One of the most prominent barriers found was ineffective training experiences (Brenner & Brill, 2016). Targeted professional development starts with an assessment of participants' needs to target areas where challenges may exist.

Professional development training supports collaboration among teachers in the school setting. Pieters and Voort (2016) assert that when teachers work together in teams

on research or curriculum design, teachers update and gain knowledge from various perspectives, particularly technological pedagogical and content knowledge, and understand the value of involving all stakeholders in the improvement of learning.

Professional development is a positive measure used to enhance professional practice. Professional development is successful when areas of need are identified and targeted. Training, collaboration, implementation, and reflection are essential parts of successful professional development. Technology integration in the content areas such as social studies require a targeted and intensive assessment of teacher practice and endless opportunities to collaborate and reflect on practices to improve skills.

**Barriers to Technology Integration**

Previous researchers have found many diverse types of barriers teachers encounter in integrating technology into instruction (Braund & Soleas, 2019; Voithofer et al., 2019). Recent research studies convey the importance of evaluating pedagogy and content knowledge to determine teachers' effectiveness in using technology in content area instruction. Oliveira et al. (2019) assert that teachers who were not sure about pedagogy as a foundation for using technology support experienced a lack of confidence in integrating technology into instruction and learning. Likewise, Linder's research showed that teachers used technology to transmit information rather than integrating technology to promote student creativity and collaborative projects due to not having the knowledge needed to integrate technology.

Teacher pedagogy and skill play an essential role in technology integration. Hilton (2016) used two frameworks, TPACK and SAM-R, to analyze teacher pedagogy

and skill in integrating technology into social studies content. The frameworks addressed pedagogy and skill as factors that determined the success of technology integration into social studies. However, the frameworks did not address teacher motivation and attitudes towards the use of technology. Knowledge and skill were deemed successful traits for technology integration, leaving a question of other motivating factors or barriers that may exist (Nadelson & Seifert, 2019; Unruh, 2019).

Researchers (Broek & Pagliarello, 2017; Obara et al., 2018; Winslow et al., 2014) have found a link between teachers' beliefs and practices related to technology integration in instruction. Hsu (2016) examined teachers' current beliefs, practices, and barriers concerning technology integration. Hsu (2016) found consistency between beliefs and practice. For example, teachers who used low-level tasks and teacher-centered instruction had beliefs that prevented technology use. On the other hand, Daniels et al. (2020) and Nadelson and Seifert (2019) found that teachers who possessed constructivist pedagogical beliefs about technology use and who placed a positive value on technology had consistency in beliefs and practice.

Self-efficacy was another barrier explored in Weber and Waxman's (2015) study. Weber & Waxman examined pre-service teachers' self-efficacy and learning to determine how educational field experiences impact confidence levels for integrating technology in instruction and learning. Contrary to Okeyere et al.'s findings, Weber and Waxman suggest teachers who lacked self-efficacy related to previous experiences, successes, and challenges were not motivated to integrate technology into instruction and learning. Obara et al. concurred with Weber and Waxman on the conceptions of technology

integration in instruction. How teachers feel about technology directly affected how often and how proficient technology was used in instruction in the classroom (Unruh, 2019; Weber & Waxman, 2015).

Researchers have uncovered other barriers that may prevent technology integration in social studies and other content areas (Nadelson & Seifert, 2019; Unruh, 2019; Weber & Waxman, 2015). Davidson et al. (2014) noted that teachers' barriers to technology integration included inadequate access to equipment, inability to troubleshoot minor technology problems, and the absence of teacher training. The barriers listed are categorized as essential support variables needed for teachers to integrate technology into instruction.

The importance of support was also evidenced in other studies (Davidson et al., 2014; Slusher, 2018). Young (2016) examined teachers' attitudes using iPads in twenty-two schools across an Ireland school district. Barriers to technology use included the availability of time, support from the school and district, and a lack of training. The lack of professional development was a significant barrier and, when provided, was proven effective in developing teacher's overall disposition, confidence, competence, and usage of technology (Oliveira et al., 2019; Young, 2016).

Lack of access to technology and inadequate support were also considered barriers to technology integration in instruction by teachers in Mirzajani et al.'s (2015) study. The authors explored the teachers' individual experiences, school environment, and technological factors in determining the extent of influence of the factors on motivation to integrate technology in the classroom. While the authors discussed the

barriers mentioned, it is essential to note motivation is dependent on a group of interconnected factors that may vary and range from support, personal attitude, age, subject taught, and the acquisition of knowledge.

Likewise, DeCoito and Richardson (2018) researched teachers' use and perceptions of technology in practice, and the factors influencing their decisions to incorporate technology into instruction. Most teachers viewed technology as a tool to assist in testing and research projects rather than an embedded part of the learning process. The authors stressed the importance of the interdependence between technology, pedagogy, and content rather than merely technical knowledge. Similar internal and external barriers discussed were the lack of social studies resources, training, support, personal investment, and peer support (DeCoito & Richardson, 2018). The lack of targeted professional development and collaboration opportunities was also identified in the study (Braund & Soleas, 2019; Broek & Pagliarello, 2017; DeCoito & Richardson, 2018).

Several studies discussed the lack of time to prepare lessons and an inadequate number of social studies resources as barriers to technology integration in instruction (Cooper & Carr, 2018; Perkins, 2019; Slusher, 2018). Kena et al. (2015) found in their study obstacles such as time to prepare technology-infused lesson plans, policy restrictions, availability of social studies resources, and level of comfort in using technology. Pittman and Gaines (2015) concur with Kena et al. in their findings of access to computers/hardware and lack of time to develop and implement lesson plans as barriers to technology integration in instruction. Kena et al. concluded that the absence

of the factors mentioned resulted in teachers' low use of technology in instruction and learning.

A lack of technical support and training in using technology can also lead to a lack of motivation to use technology in teaching and learning. Teo (2015) discussed the lack of support as a barrier to technology integration in instruction. In this study, teachers expressed a lack of personalized computer training directed towards the teacher's specific needs and a lack of personnel skilled in technology to troubleshoot technical problems.

Teachers' beliefs are recognized as a barrier to technology integration in instruction and learning. Tondeur et al. (2017) reviewed and synthesized several studies on teacher beliefs on pedagogy and technology use in the classroom, teacher beliefs as perceived barriers, beliefs about professional development, and the importance of the school context in integrating technology in instruction. Effective technology integration is not solely dependent on technical skills but involves many variables of the educational process.

Technology integration may be more effective when teachers are equipped with adequate technology devices to meet students' individual needs. Geofroy et al., 2019 used a 1:1 program blending content and pedagogy with technology as a third component. The 1:1 program provides each child with a technology device. Using this program, the researchers wanted to determine if teachers' technology integration skills would be more effective or different than schools without 1:1 programs (Geofroy et al.,

2019). Teachers in 1:1 schools gained more experience with technology and were more successful in integrating technology into instruction.

Affective aspects may impact teachers' practice in using technology in instruction. Ungar and Shamir-Inbal (2017) assert that in recognizing and investigating the affective aspect and not just knowledge and skills acquired for technology integration, a broader view may be provided to understand teachers' success or lack of success in integrating technology into instruction and learning. The authors' study aligns with the diffusion of the innovations process, which addresses teachers' attitudes and feelings related to technology integration.

**Different Views of Barriers to Technology Integration**

Researchers have conflicting views on barriers to technology integration in instruction. Okeyere-Kwakye et al.'s study examined the intentions that lead to the actual use of technology revealed attitude as positively and significantly related to teachers' preferences to use technology. Using the Technology Acceptance Model (TAM) as a framework to explore teachers' intentions to use computers in instruction, Okeyere- Kwakye et al. suggests teachers' attitudes influence behavioral choices to use technology. The study focused on two variables: perceived usefulness and perceived ease of use. The authors assert the TAM framework includes the two variables which lead to attitude towards use and behavioral intentions, which lead to actual usage.

Section 1 covered a description of the local problem which focused on the lack of proficiency of some educators in incorporating technology into social studies instruction and learning at the 4th-6th-grade levels in a Florida school district located in the southern

part of the United States. The study employed qualitative measures to explore factors that teachers perceived as barriers to integrating technology in instruction and learning in grades four through six. The study's rationale and significance justified the problem choice and its usefulness to the local educational setting. A review of the literature was presented on the study's conceptual framework, technology in social studies instruction, the social system, professional development, TPACK, and technology integration barriers.

The review of literature revealed educators are at the center of successful technology-infused instruction. Therefore, to ensure academic success and provide students with 21st-century skills needed for the future, educators should be proficient in integrating technology into instruction and learning.

The Diffusion of Innovation theory, the framework chosen for this study, addressed the elements of the innovation, which in this case are laptop computers, communication channels within an organization, the support of a social system in adopting the innovation, and the decision process educators go through in choosing to adopt or reject innovation. Wani and Ali (2015) describe Rogers' explanation of diffusion as a process by which an innovation is introduced through communication channels over time among members of a social system.

Findings from the research suggest the use of technology in social studies instruction enhances learning by offering different modes of instruction and allowing students the opportunity to construct their knowledge (Matheson, 2018). The use of technology in social studies education offers students ways to explore a wide variety of

ideas and create student-centered projects (Belagra & Draoui, 2018; Hilton, 2016; White, 2018).

TPACK helps educators better comprehend the various levels of technology integration. To connect social studies and technology, teachers must have the requisite technological, pedagogical, and content area understanding (Byker, 2014). In an educational setting, TPACK connects content, instructional practice, and technology (Byker, 2014).

Integration of technology into education, boosting collaboration, creating confidence, and persuading instructors to have positive beliefs about adopting and executing an innovation all require the backing of a social structure and communication channels (Martin, 2015; Uluyol & Sahin, 2016). Support from the building administrator and other colleagues is essential for building confidence in technology use (Martin, 2015). Training and support that provide teacher interaction can result in motivation to use technology in classroom instruction.

Professional development can offer targeted training that aids teachers in adjusting to instructional strategies and offers ways to differentiate instruction to optimize student learning (Bhatt, 2017). Professional development promotes confidence, encourages creativity, and allows time for sharing and collaboration (Ndongfack, 2015). Administrators and other organizational personnel should become aware of the many barriers for teachers in and outside the classroom.

Organizations can eliminate many existing barriers by providing adequate social studies resources, technical support, moral support, and targeted professional training for

educators to reach the goal of successful integration of technology in instruction and learning (Weber & Waxman, 2015). If targeted professional development and ongoing support are provided to teachers to overcome the barriers discussed, teachers may progress towards improvement in integrating technology into social studies and other content-area instruction.

The literature review for this study emphasized the need to explore further the knowledge and beliefs about technology, the communication channels, and the support of teachers' social system required to integrate technology into social studies instruction and learning. The research questions were designed to explore the purpose of the study, which is to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology in terms of the potential for properly integrating technology in studies instruction.

Teachers' perceptions are essential to the understanding and identification of barriers that prohibit proficiency in technology integration. Bataineh and Anderson (2015) assert that research is vital to provide teachers with optimal skills for the instruction of social studies using technology, which will enhance students' 21st -century skills. The research purpose is relevant to this study because of the continuous emergence of different technology teachers must use to meet diverse learners' needs. Providing teachers with optimal skills for the instruction of social studies with the use of technology should enhance students' 21st-century skills. Technology is essential in preparing students for future 21st-century skills; thus, teachers must face the challenge of using technology advantageously. Integrating technology into social studies instruction

and learning provides a platform for students to construct their knowledge and for teachers to allow students to do so by becoming facilitators of their learning. In doing so, students gain ownership of their learning experiences. The technological age in which we live requires educators to keep abreast of the latest technological skills and instructional modes of learning. Learning with technology is at the forefront of learning skills for students today. Educators should be knowledgeable about how to pair technology with pedagogy and content knowledge to prepare students for the future.

The professional development project suggested for this study is ongoing and embedded in the school day. The professional development project will provide time for lesson study, collaboration and planning, modeling, and reflection. The project will be followed up by yearly plans of improvement based on administrator and teacher feedback.

The research design, approach and justification were described in Section 2. This section includes a description of the sample and the criteria for selection. A description of data collection, analysis and results were also discussed in this section. Section 3 contains an outline of the project developed to address the findings of the study. This section includes the rationale of the project, a review of the literature including the supporting framework of the study, a description of the project, and an evaluation plan to measure the effectiveness of the plan.

Section 2: The Methodology

## Introduction

The methodology of this qualitative, exploratory case study was described in Section 2. A qualitative research design was chosen to explore why teachers in an urban elementary school district are not demonstrating proficiency in using instructional technology for social studies instruction and learning. The use of technology in social studies instruction and learning is important for developing 21st century skills needed for today's students. Data for this exploratory case study was collected from conducting interviews and reviewing district-approved documents. The following research questions guided this qualitative study and were used to develop the interview questions:

RQ-1 How do 4th-6th-grade teachers demonstrate their knowledge of the innovation regarding technology integration in social studies teaching and learning?

RQ-2 How do 4th-6th-grade teachers describe their communication channels or how teachers relate to others in their educational environment regarding integrating technology into social studies teaching and learning?

RQ-3 How do 4th-6th-grade teachers describe the support of their social system or organization regarding integrating technology into social studies teaching and learning?

## Qualitative Research Design and Approach

According to Creswell (2012), qualitative methods are appropriate methods that allow researchers to interpret meaning from data to understand social situations through the study of targeted populations or places. Researchers use qualitative methods to study

a phenomenon's variables that cannot be separated from their context (Yin, 2014). The qualitative data collection instruments were semi-structured interviews and district-approved documents. The district approved documents consisted of the district technology plan and the 4th-6th grade social studies curriculum guides. Interviews conducted were semi-structured and provided thought-provoking questions used to gather in-depth experiences that brought out the essence of the phenomenon (Yin, 2014). The district approved documents provided information on the technology plan and the focus of technology in social studies instruction. Observations were a third data collection methodology indicated in the approved proposal. However, because of the COVID-19 pandemic, the observations could not be completed. Additionally, the approved proposal indicated teachers were to be interviewed face-to-face. Before the onset of the Covid-19 pandemic one face-to-face interview was completed at my school. Afterwards, as with the observations, face to face interviews were prohibited due to the pandemic and closing of schools. Therefore, teachers were interviewed via phone and zoom online. Documents such as the district technology implementation plan and social studies curriculum guides were reviewed to gain insight into district support of technology integration in social studies instruction. Data were analyzed and reported according to a qualitative process (Creswell, 2012).

The purpose of this qualitative exploratory case study was to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology regarding the potential for effective integration of technology in studies instruction. Obtaining data from interviews served as a foundation for exploring the

problem. The guiding questions were aligned with three of the elements of the Diffusions of Innovations theory, the study's framework. The study's guiding questions addressed knowledge of the innovation, communication channels in an educational organization, and the organization's social system in integrating technology into the content areas, specifically social studies instruction. Time, the 4th element of the Diffusions of Innovations theory, was not addressed in the study. The yearly progress in the use of the innovation in improving the knowledge and skills of students towards technology and the improvement of skill in technology integration in instruction is considered the most important goal. The first guiding question focused on teachers' knowledge of the innovation, which included attitude and self-efficacy about technology integration, motivation to integrate technology, and beliefs about technology's value in instruction. The second guiding question addressed communication channels or how teachers interact with each other regarding technology integration in social studies instruction and learning. The third question focused on the types of support given: moral, training, or technical support offered to teachers to implement technology integration in social studies instruction (Ndongfack, 2015). The research logically derived from the problem and guiding questions, which aided in the understanding of teachers' perspectives on technology integration in social studies instruction and learning (Creswell, 2012).

A qualitative research design was chosen to explore teachers' perspectives on integrating technology in social studies instruction. A qualitative design is justified as qualitative methods allow the researcher to capture in-depth perspectives and deeper meaning of the phenomenon studied (Creswell, 2012; Yin, 2014). According to Creswell

(2012), qualitative methods allow researchers to interpret meaning from data to understand social situations, communications, and the innovation involved by studying targeted populations or places. Researchers use qualitative methods to study a phenomenon's variables that cannot be separated from their context (Yin, 2014). Qualitative methods involve interviews, observations, and documents to gain the participants' experiences (Yin, 2014). Interviews and district-approved documents were used in this study to gain a deeper meaning of teachers' perspectives on integrating technology in social studies instruction. The documents used in the study were the district technology plan and the 4th-6th-grade social studies/civics curriculum.

A qualitative design was an appropriate methodology for this study because it was the intention of this research study to provide an understanding of how teachers demonstrate and describe the integration of technology in social studies instruction. Researchers use qualitative methods to study a phenomenon's variables that cannot be separated from their context (Yin, 2014). Merriam (2011) asserts qualitative methods provide an understanding of experiences through an individual's interpretations of lived experiences. Lodico et al. (2010) also supports qualitative research to gain the authentic human experience in its context.

A case study was an appropriate approach for this qualitative study. There are diverse types of qualitative methods; a case study was a suitable choice to allow participants to interact with the researcher while capturing lived experiences that provided an understanding of teachers' perspectives on integrating technology in instruction (Yin, 2014). A case study allows the researcher to understand the

phenomenon by gaining insight into the surrounding factors that may affect the phenomenon (Yin, 2014). Other qualitative approaches such as a grounded theory, which uses data to build a theory, or an ethnographic approach, describing a cultural group would not suffice. Phenomenology research, which is conducted over a more extended period to gain insight into patterns and relationships, is also not suitable (Creswell, 2012). This study involved a purposeful sample within a limited amount of time and identified themes from a collection of data (Creswell, 2012). Other approaches would not be effective in gaining insight into the problem of this study. Quantitative methods alone result in diverse types of numerical data in nature and do not provide an understanding of an individual's lived experiences in context (Merriam, 2011). Thus, a qualitative case study was the most appropriate choice to gain perspectives of integrating technology in social studies instruction and learning.

## Participants

### Criteria for Selecting Participants

The study's participants were a purposive sample of 10 $4^{th}$ -$6^{th}$ grade social studies elementary and middle school teachers from across the district. Creswell (2012) suggests that a purposive sample and a smaller number of participants would provide a deeper level of inquiry and understanding of the problem under investigation in a qualitative study.

The participants were from 5 schools, 3 gifted education classes and 7 regular education classes with departmental block schedules and 2-3 teacher team schedules that change once or twice daily. The participants were chosen based on the following criteria:

- Presently teaching 4th-6th grade civics/social studies in their classrooms
- Have social studies certification from the state of Florida
- Have 3-5 years of experience as a social studies teacher

Teachers who met the criteria and volunteered to participate in the study were accepted until the sample saturation was reached. Initially twelve teachers volunteered to participate. However, two rescinded prior to the data collection process. One participant taught in the gifted education program and a 5th- grade participant taught in a language arts and social studies program. Six participants were 4th-5th- grade teachers who taught language arts and social studies. Finally, wo participants were 6th- grade middle school teachers who taught civics in a block schedule program.

This qualitative study provided a greater understanding of the study's purpose, which was to explore teachers' perspectives on integrating technology into social studies instruction. The participants offered perspectives from various grade levels and experiences from different school environments and provided a deeper understanding of the phenomenon studied.

**Procedures for Gaining Access to Participants**

Approval from Walden's Institutional Review Board was the first step before accessing participants. Once the IRB approved the research, I began the process of obtaining approval from the school district. The Florida school district's Office of Research and Accountability requires completing a research application and a letter of request to research within the school district. The process included submitting the application along with a proposal to the superintendent of schools for approval. After the

district approved the request to conduct the research, information about the study was provided to the principals or "gatekeepers," as referenced by Creswell, of the sites chosen. After principals permitted me to enlist participants from their schools, I used the staff directories to contact social studies and civics teachers from twenty-five of the elementary and middle schools in the districts. The schools were selected from k-5 elementary schools and 6th-8th grade middle schools to include 4th -6th-grade social studies teachers. Obtaining the consent of the participants was accomplished by communicating through the school email to 4th-6th- grade social studies teachers at the schools chosen. Initially, forty-five emails were sent to teachers that met the criteria stated and three responses were received. I follow-up sending thirty additional emails to potential participants asking teachers to read the consent form and email any questions. The email included an attachment explaining the criteria for selection with participant information and an informed consent form. The informed consent included information on the possible risks and benefits and participants' rights and protection measures. Through repeated email conversations with potential participants, I selected twelve social studies teachers to participate in the study; however, two of the participants declined to participate. When the consent forms were returned by email, interviews were scheduled and completed by phone and zoom online. Six participants were interviewed via phone, one face-to-face, and 3 were interviewed on Zoom online.

**Establishing a Researcher-Participant Relationship**

I am currently employed as a reading interventions teacher working with 4th-5th-grade teachers and students at a district school. However, my past teaching experiences

included 15 years of teaching social studies to 4th and 5th-grade students. The participants were selected based on meeting the criteria of currently teaching social studies with at least 3-5 years of experience and possessing a state certificate. Participants were chosen also on a first come basis. My present position allowed me to become familiar with six of the participants from my school and form professional relationships. The 4 participants outside of the school site were contacted via phone to develop a rapport, answer questions about the study, and assure participants of confidentiality. A researcher-participant relationship was also established with participants through email correspondence for 2-3 weeks leading up to the interviews. I continued to familiarize participants with the study, which Creswell (2012) suggests, is essential to a researcher-participant relationship.

Discussions and interviews conducted in person, through Zoom, and via phone also helped to build relationships with participants. According to Goodman et al., researchers should be mindful of the possibility of forming inevitable relationships that are critical to participants' disclosure of pertinent information related to the study phenomenon. Contacts and discussions made it possible for participants to gain trust and become comfortable enough in the interview process to expound on the questions asked (Goodman et al., 2016). Without displaying any biases from past experiences in teaching social studies, I formed a mutually respectful rapport which allowed an open exchange during the interview process.

**Protection of Participant Rights**

Providing a clear understanding to the participants about their role, rights, and protection is essential for the researcher in a qualitative research study. Participants were assured that confidentiality and protection from harm were a priority of the researcher. As discussed by Lodico et al. (2010), I obtained informed consent from all participants as an initial step in protecting participants' rights. The informed consent provided participants with information regarding the nature of the study, the research objective, the participants' role, and how the results will be used. Participants were also informed of the details on measures to ensure protection from emotional or physical harm and assured that participation was voluntary with an option to withdraw at any time. Participants were informed via school email on how data was collected and secured. The informed consent information was also discussed before the interview to restate the research purpose and the option to withdraw at any time without any repercussions (Creswell, 2012; Goodman, et al., 2016; Lodico et al., 2010). I reviewed the procedures and potential benefits and risks of participating in the study (Creswell, 2012; Lodico et al., 2010; Merriam, 2011) and ensured this information was included in the informed consent form.

Privacy and confidentiality were also protected for participants in the research study. I labeled the participants alphabetically to conceal the names and ensured any information that could identify the participants, such as demographics, was omitted (Creswell, 2012; Lodico et al., 2010; Merriam, 2011). Face-to-face interviews that would have initially taken place were changed to online contact due to the circumstances of the

Covid-19 pandemic. Interviews were audiotaped and secured with a passcode to prevent access to anyone other than the researcher. School site names and the district name were also not disclosed. A password secured all data stored on my laptop computer, and locked files secured handwritten data.

## Data Collection

This qualitative exploratory case study explored teachers' perspectives on the barriers that may prevent them from demonstrating proficiency in technology integration in social studies instruction. According to Creswell (2012), qualitative methods allow researchers to interpret meaning from data to understand social situations through the study of targeted populations or places. Data collection began after the approval of Walden University's Institutional Review Board and the district's Research and Accountability committee approval. Data was collected from interviews on teachers' knowledge of technology and how their knowledge is demonstrated in the instruction of social studies, how teachers communicate with one another and their support system in the organization, and the influences in the social system that determine incorporation of technology into the social studies instruction. A qualitative data collection procedure ensued using participant interviews, and district-approved documents (Creswell, 2012). The district approved documents reviewed for this study were the $4^{th}$-$6^{th}$- grade social studies curriculum and the district technology plan. Interviews and district-approved documents were the data collection sources used to provide credibility to the research and ensure in-depth responses (Creswell, 2012; Yin, 2014). Data collection methods are discussed in the following order:

**Interviews**

The first data collection method was an open-ended semi-structured interview with social studies and civics teachers. Interviews were the primary source of data to answer the research questions and gain teachers' perspectives on integrating technology in social studies instruction. According to Yin (2014), interviews are an essential source for case studies and provide a platform for open-ended discussions. Open-ended interview questions are justified as these questions provide a starting point to guide teachers in more in-depth questioning and conversations (Creswell, 2012). Creswell (2012) also suggests that interviews are appropriate for corroborating or verifying other data sources.

The conceptual framework, research problem, and research questions were used to develop the interview protocol (Appendix B). The interview instrument aligns with the constructs of Roger's Diffusion of Innovations theory: knowledge of the innovation, communication channels, and social system, used for the study. The interview protocol was designed to capture teachers' perspectives on the three areas of the Diffusion of Innovations theory: knowledge of the innovation, communications channels among teachers, and the social system of an educational organization in integrating technology in social studies instruction.

Creswell (2012) noted that interviews allow researchers to gain deeper meaning. The interview consisted of 25 to 27 minutes of questions from the interview guide to ensure the same questions are used for each interview; After each interview, the participants were asked to add any additional information about the questions asked, and

follow-up emails were done to clarify additional information. Data collected through semi-structured interviews conducted through Zoom and through phone calls were audio-recorded for accuracy, and notes were written on key points then transcribed after each interview. A phone password was used to secure audio recordings and computer passwords were used to secure Zoom recordings.

**Documents**

The second data collection method included a review of school documents such as curriculum guides and the district technology plan, which provided evidence of knowledge, planning, and social studies resources to integrate technology in social studies instruction. The district technology plan provided insight into professional development provided for teachers' training in technology integration in social studies instruction and the technology-related standards that apply to teacher practice in instruction. The technology plan also provided insight into technical support, such as technical and building workshops available to teachers.

Curriculum guides offered evidence of how technology was integrated into social studies planning. Curriculum guides also included technology-related standards infused in instruction as well as social studies resources and experiences related to technology-infused instruction.

**Sufficiency of Data Collection**

Data collection was sufficient in providing a greater understanding of the purpose of the study, which is to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology in terms of the potential for properly

integrating technology in studies instruction. The interview questions addressed the study's research questions, teachers' perspectives on the innovation, communication channels of teachers, and teachers' social system. Probing questions in the interview protocol were used during the interviews until data saturation was reached. District-approved documents provided information on how social studies is to be infused into the curriculum and the goals and objectives of the technology plan. Lived experiences can be gained through interviews of teachers' knowledge and use of technology in the classroom environment, and district-approved documents are sufficient for data collection (Creswell, 2012). Data was collected using semi-structured one-on-one interviews until participant responses were repetitive, and thus the data became saturated (Creswell, 2012). The district-approved documents were read several times, and recorded notes were placed in a secured journal after summaries were completed, thus ensuring that all data collection was sufficient.

**System for Keeping Track of the Data**

Data from semi-structured interviews were audio-recorded for accuracy as notes were written on key points then transcribed in a word document and placed in a document file. A reflective journal was used to document the researcher's thoughts and reflections from the interviews. Information from documents was analyzed and recorded in research logs. All research information was stored in a laptop file only to be accessed by the researcher and backed up on a personal zip drive; both were passcode secured.

**The Role of the Researcher**

As a teacher of more than 25+ years in various school districts, I have had the opportunity to teach social studies in many different settings. I have experienced various levels of access to technology, communication, and administrative support. I have also collaborated with teachers in planning and implementing instruction integrated with technology. The district that is the focus of my study promotes the importance of attaining 21st -century skills by providing an excellent infrastructure, technology for all students, and a technology plan. These reasons compelled me to explore technology use in the classroom, especially in the content area of social studies instruction, which promotes and prepares students with 21st-century skills. The study would be beneficial to the district in their integration efforts as outlined in their technology implementation plan. My role as a researcher was to collect data in an unbiased manner and analyze and present results that may help improve the district's effort to integrate technology into the content areas to include social studies. My role as a researcher was also to form and sustain professional relationships with all participants and administrators involved in the study and become aware of any personal biases related to the topic.

Technology was an essential part of the data collection and analysis process. I used school email to contact and inform principals and teachers about the study. I used Zoom, and phone recorders to interview participants along with a micro-cassette recorder. I also used Microsoft Office for documents created, tracking of emails, sending, and retrieving consent forms, and for color-coding words and phrases in documents.

## Data Analysis

A qualitative exploratory case study design was used to collect, transcribe, and analyze the data to address why teachers in an urban elementary school district were not demonstrating proficiency in integrating instructional technology in social studies instruction and learning. The data collection instruments were interviews and documents. Qualitative data analysis processes involve collecting and organizing data to gain the meaning of data (Creswell, 2012). The research questions which were formed based on the three components of Rogers' (2003) Diffusion of Innovations theory: knowledge of the innovation, communication channels, and social system of the organization, were used to organize and analyze the data. I used an inductive reasoning method to generate, gather, and record the data which involved the process of organizing, transcribing, analyzing, and interpreting the data to gain meaning (Yin, 2014). Hanson and Kilmo (1998) classified data analysis as a process of disassembling data to assign meaning to individual parts. I analyzed the interview data using open and axial coding and a sequential method within the first 24 hours after data was recorded. Interview data was placed in a Microsoft Word document chart to review, compare, and analyze interview responses. I read the district technology plan and the teachers' guides for grades $4^{th}$-$6^{th}$ and took notes. The notes from the district-approved documents were analyzed then compared to the interview responses. The results of the document analysis were also placed in a Word document. I analyzed the documents after the analysis of the interviews and compared the document analysis with the results from interviews. Teachers involved in interviews were assigned a pseudonym such as teacher A, B, C, or D.

Merriam (2011) states data analysis is making sense out of data by consolidating, reducing, and interpreting participants' words and what is seen and heard by the researcher. I transcribed the interview data from my phone audio recorder into Microsoft Word then I compared the transcribed data with the recordings of the interviews and notes to confirm the accuracy of what was transcribed. Next, I devised a coding chart using a Microsoft document with the codes and meanings of codes. As I identified similar words and phrases across the interview questions, I used different text colors to identify each code. Open and axial coding (Creswell, 2012) was used to analyze the data. Using open coding, the interview data was broken into parts. Next, the axial coding process revealed connections between the data. I used text segment coding which according to Castleberry and Nolen (2018), is the process of identifying similarities and differences in data to allow meaning to emerge.

1. Perceptions of Knowledge, Use, and Technology Integration
2. Communication, Collaboration, and Planning
3. School and District Support
4. Professional Development for Technology Integration

**Interview Analysis**

Interviews, the main source of data, were structured to capture teachers' perspectives on technology integration in social studies instruction and learning. Merriam (2011) states that data analysis is making sense out of data by consolidating, reducing, and interpreting participants' words and what is seen and heard by the researcher. An interview protocol (Appendix D) was used to guide the interviews.

Interviews were scheduled to last 30-45 minutes; however, 9 of the 10 interviews lasted 25-27 minutes. One face-to-face interview was conducted in school. Afterward, the remaining interviews were conducted by Zoom or by phone because of the occurrence of the Covid-19 pandemic.

Yin (2014) asserts recording interviews rather than hand recording interviews can avoid inaccurate or incomplete notes of spoken words. I used an Apple voice recorder to record the interviews which allowed me the opportunity to capture the responses and be able to go back later and listen to the interview responses and interactions between myself and the participants. The recorded interviews also offered the opportunity to listen various times and analyze the full essence of the accounts. A backup device, a second phone recorder, was used to provide an extra copy of the Zoom interview data in case there was an incident of loss of the data.

The next phase of my analysis process was the transcription of the individual interviews. I listened to the recordings several times as I transcribed the interview data into a Word document. To confirm the accuracy of the transcribed interviews, I checked the transcription of the responses by listening to and comparing the typed document with the recording. I begin reading and rereading the interview data which aided in understanding and comparing the participants' responses (Merriam, 2011). Reading, transcribing, and checking was repeated allowing me to familiarize myself with the participants' responses and connect the responses and thoughts of each participant with each research question. As I familiarized myself with the interview responses of each

participant, I used a word document to record notes which helped me prepare a narrative of the results later.

In the next phase of my analysis, I begin open coding to identify participant responses. The interview questions were divided into three categories according to Roger's Diffusion of Innovations theory: knowledge of the innovation, communication channels among school and district, and social system of the organization in the integration of technology in instruction and learning. Each category of the interview was aligned with one of the three research questions.

Codes were used to identify and label keywords and phrases using assorted colors and letter codes. The coding strategy consisted of open and axial coding as data collection occurs, which Baskarada (2014) asserts, aids in forming broad topics. I begin with open coding, breaking up the interview data into parts. Next, I used axial coding to find connections between the codes. I used text segment coding which according to Castleberry and Nolen (2018), is the process of identifying similarities and differences in data to allow meaning to emerge. I engaged in a constant comparative analysis (Creswell, 2012) to distinguish similarities and differences in the interview data during the coding process. Thus, the data analysis methods used for the interviewing process were open and axial coding, thematic development, and constant comparative analysis. The data was coded, and major and minor themes emerged. The interview responses were then copied into a Word document chart to align the responses with the research questions and identify themes. The data analysis process continued until the data was fully saturated, and the research questions were addressed.

The interviews and document analysis were placed in a Word document matrix to note patterns and themes that continued to emerge. The data analysis refinement process continued until all information was categorized. After the data analysis process was completed, four themes emerged: Perceptions of Knowledge, Use, and Technology Integration, Communication, Collaboration, and Planning, School and District Support, and Professional Development for Technology Integration. A narrative was written to summarize the results of the interviews based on the themes.

**Documents**

Tashakkor et al. (2020) describe document reviews as an essential part of the process of understanding the phenomenon of a research study. Documents can be used to account for the activity that cannot be observed directly or may be excluded during interviews (Tashakkori et al., 2020). Documents require no transcription and are ready for analysis (Creswell, 2012). District-approved documents such as the district technology plan and the social studies curriculum were analyzed as the third step to provide insight into technology integration and knowledge of how technology and social studies are placed in the curriculum. District-approved documents were triangulated with interview results. I analyzed for the reliability of implementation between what the district-approved documents stated needed to occur and what the interview data revealed did occur.

The district technology plan and district approved documents, were comprehensive in providing information on aspects that pertain to technology resources, training, and communication related to technology integration. I analyzed the technology

mission and vision to understand how it aligned with the district's technology goals and standards. I analyzed the goals and timetable of the implementation plan. I reviewed the state technology standards for teachers to determine if the technology plan was aligned with the state standards. I also looked at available social studies technology resources and support from the district evident in the plan.

The curriculum guides provided coursework, available social studies technology resources, and lesson implementation schedules. I analyzed the district social studies curriculum to determine social studies technology resources and lessons offered for teachers to integrate technology in social studies instruction. I analyzed the online text to explore how technology was integrated into social studies instruction and the available sample lessons to gain knowledge of how lessons infused with technology should be taught. I compared the curriculum documents as I read and wrote notes to compare with the interview results. I created an analysis summary of the documents to compare with the interview data analysis results.

In summary, the analysis process was based on Hanson and Kilmo's (1998) and Yin's (2014) frameworks: Compiling an orderly set of data by reading and re-reading transcripts; disassembling the data by summarizing, categorizing, and coding; reassembling the data by summarizing and revising into structural units; interpreting the data by creating broad themes; and drawing conclusions by the reflection of the themes. The process continued until the data was fully saturated.

## Data Analysis Results

Data were collected from interviews and district-approved documents. The data were transcribed and organized according to the research questions and organized in a visually obvious way by using a Microsoft Word table. The data analysis in this study was structured around the construct of Rogers' (2003) Diffusion of Innovations theory, which explains how innovations are adopted and used in an organization. Rogers (2003) states Diffusion of Innovations requires knowledge, communication channels, a social system, and time. Three of the four elements knowledge, communication channels, and the social system, were used to create the research questions and organize the data. Interview questions and responses that pertained to the knowledge of the innovation were aggregated together. Interview questions related to communication channels were organized together, and questions that pertained to the social system of the organization were organized together in the chart. Once, the research questions, interview questions, and responses were categorized, I began the coding process. I used open and axial coding to categorize my data into concepts, properties, and patterns. Creswell (2012) describes open coding as breaking down data into smaller parts to examine, compare, conceptualize, and categorize data and axial coding to put data back together in new ways after open coding, by making connections between categories. I used selected colors to code words, phrases, sentences, or paragraphs to organize the participants' responses for similarity and repetition (Yin, 2014).

I then analyzed the district-approved documents and wrote a structural analysis of each section of the technology plan and district social studies curriculum related to my

research objective. Next, I wrote narratives for the interviews and district-approved documents. Finally, I triangulated the collective narratives with the results of the review of the documents to determine thematic relationships. My next step was to validate the data. I made sure that I followed the Walden Institutional Review Board's (IRB) ethical guidelines for quality research. I triangulated the data by gathering information from the findings collected from interviews and district-approved documents (Creswell, 2012). After I transcribed the interview responses and analyzed the data, I asked additional follow-up questions to clarify the teachers' initial responses. Moreover, I read and reread the data collected from the interviews and district-approved documents to develop themes related to the research questions and ensure that the findings were accurate, credible, and valid. Furthermore, I set aside all personal biases that I may have about this research topic to ensure that I collected and analyzed the data fairly and accurately (Yin, 2014). I presented the results truthfully to reflect trustworthiness and credibility. Finally, I concluded my data analysis by stating my findings and research outcomes based on the research questions.

This qualitative study's findings were based on the themes that evolved from the analysis and triangulation of data collected from interviews and district-approved documents. Three research questions guided the study that focused on teachers' knowledge and use of technology in social studies instruction, the communication channels of teachers on social studies and technology, and the organization's support in integrating technology in social studies instruction. The interview questions provided descriptive responses that helped answer the research questions used to understand

teachers' perspectives of technology integration in social studies instruction. Teachers' knowledge, communication channels, and support from the organization need further review to ensure technology integration in social studies instruction and learning. Teachers have a voice in addressing the research problem through interviews (Creswell, 2012). The perspectives of teachers shared through the interviews are needed to address the study problem and may lead to providing alternate solutions for teachers to improve practice with technology in social studies and other content-area instruction and to enhance the academic achievement of students.

The themes that emerged from the analysis of the interview responses and district approved document reviews were Perceptions of Knowledge, Use, and Technology Integration, Communication, Collaboration, and Planning, School and District Social System Support, and Professional Development for Technology Integration.

**Interview Analysis Themes**

**Table 1**

*Summary of Themes*

| Themes | Description |
|---|---|
| 1. Perceptions of Knowledge, Use, and Technology Integration | |
| 2. Communication, Collaboration, and Planning | |
| 3. School and District Support | |
| 4. Professional Development for Technology Integration | |

Interview data provided the perspectives of social studies teachers on the Integration of technology in social studies instruction. To align with the research Questions, the interview questions were categorized into three sections: Knowledge and Use of Technology, Teacher Communication Channels, and Social System according to the Diffusion of Innovations theory (Ndongfack, 2015; Rogers, 2003). Data triangulation was employed to analyze the results of interview and document review data. The technology plan stated that the district goals for technology are to deploy adequate technology to address 21st-century learning skills, and to offer professional development opportunities that target technology knowledge and skill and integration in the content areas (Duval County Public Schools Technology Plan, 2018). The district technology plan also indicated that the goals of the Technology plan are to integrate technology tools, to increase external communication and collaboration, and to integrate technology into the classroom learning environment (Duval County Public Schools Technology Plan, 2018). The long and short-term technology plan goals and strategies were compared against the interview results. Teachers' responses from the interview questions evidenced a lack of proficiency in technological skills, communication, and support of the social system from school and district personnel concerning technology integration in social studies instruction. The technology plan stated that adequate resources would be provided to support district initiatives however, teachers stated social studies resources were not adequate for technology integration in social studies. The district technology plan stated ongoing technical support would be provided by district professionals for equipment use, however, teachers stated that technology support consisted of teachers in

the buildings with some technical knowledge troubleshooting issues and the help desk which is a system provided by the district for contacting technicians for technical support. Expanding on-site technicians was another goal of the district technology plan.

Professional development was one of the long-term goals stated in the technology Plan (Duval County Public Schools Technology Plan, 2018). The technology plan stated professional development opportunities for the effective use of technology would be provided for teachers and other personnel. Although professional development opportunities are in place that address 3-tier levels of technology skills, teachers stated that professional development did not provide targeted social studies technology integration to promote learning of 21st-century skills. Several professional development workshops on technology are available as stated by the technology plan however, teachers stated that there were none known that targeted social studies.

**Overview of the Research Questions and Related Themes**

In this section, I discussed the research questions and the themes related to the research questions. Next, the research question results were summarized and an overall conclusion of the results was discussed.

**Research Question 1 Results**

Interview response data were used to analyze the first research question. The first research question (RQ1) addressed how 4th-6th-grade teachers demonstrate their knowledge of the innovation regarding technology integration in social studies teaching and learning. Interview questions from the first category, Knowledge of the Innovation,

were developed to address the first research question. The themes derived from responses based on the interview questions were knowledge, value, and use of technology and perceptions of technology integration.

Concerning knowledge and use of technology, participants placed a high value on technology, teaching, and knowing the content they teach. Participants also expressed that technology plays an immensely powerful role in the firsthand and visual aspects of learning and teaching with technology is essential and necessary for today's learners. Regarding perceptions of technology integration, most participants expressed that becoming proficient in technology use resulted from exploring, spending optimal time, and learning as they used technology. However, other participants had different views of technology use expressing uneasiness with the rapid changes and demands of use in instruction. Participants further expressed the value of technology use. Teachers expressed that the use of technology helps students understand and connect to the past, aids students in experiencing and creating work based on their understanding of the subject matter, and in using technology to explore social studies topics relevant to their lives. Teachers also expressed the use of technology in social studies would allow them to become facilitators for students as they use technology to explore social studies topics relevant to their own lives. The reasons mentioned evidence the importance of using technology in social studies instruction and learning. The use of technology offers an abundance of information for students to explore their world and connect ideas related to twenty-first century skills.

**Theme 1: Perceptions of Knowledge, Use, and Technology Integration**

The first theme was based on the responses to interview questions related to how participants perceive technology integration in instruction and participants' perspectives of their knowledge and use of technology. Technological Pedagogical Content Knowledge (TPACK) allows educators to focus on further technology use and view technology as an integrative tool for instruction rather than a practice (Herring et al., 2016).

Overall, participants viewed technology as an essential part of teaching and learning and placed a high value of importance on teachers' knowledge of content, pedagogy, and technology for effective instruction and learning in social studies. Participant C stated, "Knowing how to integrate technology in my teaching is of high value. First, it is important to know your content area, then you will be able to choose the right technology experiences for students, so it is very important." Participant H agreed by stating: "Teaching with content and technology knowledge is very important and much needed for successful teaching. You cannot use technology effectively without the knowledge of content and without knowing what strategies to use."

Teachers stated their knowledge and use were related to time spent exploring and learning how to use technology. Teachers also expressed that increasing time spent exploring and "playing around" with computers and other technology applications increased learning and contributed to the ease in use. Participant A noted, "I'm self-taught. For the basics, I'm pretty proficient. I explore and learn as I go." Participant C also stated, "My knowledge and use are vast, and I am comfortable with it. The more I

am online, the more I learn, so I can just about find or work with any and all programs." Participant J agreed with participants A and C and stated, "Most of my knowledge has come from exploring and spending time on computers and other technology forms. The more time I spend on it, the better I get, so I'm pretty comfortable. I spend most of my time on technology, computers outside of school." Some participants expressed a different view of technology use in instruction for reasons such as lack of social studies technology resources and mandates from the district. Participant B expressed no desire to use computer technology but did so because she felt there was no choice. This participant felt inadequate compared to the younger generation of users. Participant H noted, "I don't always use technology; therefore, I have limited knowledge." Responses on knowledge and use reflected that participants were at various levels in terms of knowledge and technology use.

Major themes that emerged regarding participants' strengths in using technology in instruction included knowing how to navigate basic programs and knowing how to teach students to conduct research using computers. Participant A stated, "I can teach students step by step how to use the technology to do research." Participant C noted that "My strengths would be my ability to work with any programs and using search engines for research." Teachers also stated that there were areas in which they felt further learning was needed. Most participants' weaknesses in using technology were the lack of knowledge about innovative programs and choosing technology experiences to enhance lessons taught. Participant D noted that the ability to choose technology to align with various activities or lessons was an area that he did not have knowledge of. Participant E

agreed that he did not have knowledge of "choosing technology experiences related to social studies lessons was an area where more training was needed. One participant, G explained, "I don't include technology in social studies teaching due to a lack of social studies technology resources."

Most teachers felt that knowing how to use technology to differentiate learning is essential in teaching diverse students. Teachers differentiate instruction using technology in social studies instruction in diverse ways based on their knowledge of technology and time allotted for social studies instruction. Participant C noted, "The way I differentiate instruction in social studies is by using what I know about my students to allow them to choose the type of work they wish to do on a particular topic. Some students may choose research, or others may choose reports or projects. Knowing their levels of interest and expertise allows me to help my students to choose the way they want to create and show their knowledge." Participant H noted, "I use Achieve 3000 online articles related to social studies. Part of social studies is taught through Achieve mostly because we don't have enough allotted time." Participant E stated, "I cannot say that I would be able to differentiate in social studies. I guess I would do research with students on various levels using technology with various levels of support."

Most teachers' descriptions of technology integration in social studies instruction included facilitating students in creating their learning through investigation and research reports, proposals, and project-based learning. Additionally, teachers wanted to expose their students to the world through virtual field trips and interactive videos. The lack of

allotted time, schedules, social studies resources, and focus on social studies were noted as barriers to teachers' endeavors to integrate technology in social studies instruction.

**Research Question 2**

The second research question sought to capture how 4th-6th-grade teachers describe their communication channels or how teachers relate to others in their educational environment regarding integrating technology into social studies teaching and learning. Interview question responses from the second section, communication channels, were used to analyze data to address RQ 2. The interview responses formed the following theme: communication, collaboration, and planning. The responses addressed how teachers communicate in school in terms of team meetings, informal discussions, collaboration and planning, and enlisting help with technology-infused social studies lessons from other teachers.

Most teachers in the regular education program responded that weekly meetings do not involve collaboration and planning for social studies instruction. Other teachers that are departmentalized or in gifted education programs attended regularly scheduled social studies meetings. Teachers shared that collaboration and planning that pertains to technology and social studies instruction was varied in gifted programs and non-existent in regular education programs.

Support for teachers within the school building in terms of technical support and enlisting help in technology-infused lessons varied among teachers interviewed. All schools have access to technical support through the technology help desk which provides information and troubleshooting via district technology personnel however, the

assistance is not immediate and sometimes may take days. Most schools have persons, not technical personnel, in the building who take care of immediate technical problems. Professional development for technology integration is not provided in the school buildings. Some teachers regularly collaborated providing input and help in creating and implementing social studies-related technology-infused lessons and projects. One participant explained that the social studies teacher teams often helped with projects and in teaching lessons with technology. Participants' informal discussions did not result in the integration of technology into social studies instruction except for teachers in gifted programs. One participant explained that teachers met in passing in the halls and discussed topics and chapters covered in the text and the Achieve 3000 articles in the district online reading program that aligns with social studies instruction. Other participants stated that they discussed projects, websites, curriculum standards, and virtual learning, such as field trips that may be used for social studies instruction. Several participants expressed a lack of time or no scheduled time to plan, discuss, or collaborate for technology-related social studies lessons.

**Theme 2: Communication, Collaboration, and Planning**

The second theme that emerged from the responses to the interview questions related to teachers' communication channels involved in integrating technology in social studies instruction and learning. Communication channels refer to how stakeholders communicate about teaching and student learning. Capogna (2016) suggests that the quality of communication and interaction among teachers and others in the support system ensures the quality of the teaching-learning process. From communication and

interactions among colleagues, teachers derive confidence and skill to complete individual tasks such as integrating technology into subject areas. Informal teacher discussions, weekly meetings, and planning and collaboration are the communications discussed. Cachay-Huamán and Ramírez-Hernández (2019) assert, collaboration promotes knowledge acquisition and improves student success.

Teachers in the study, mostly 4th and 5th-grade teachers, noted that regular meetings are conducted for the state-tested subjects; however, these meetings did not pertain to social studies instruction. Participant A stated, "We don't meet for social studies, only for language arts, math, and science once a week." We meet to discuss language arts and writing, testing subjects." Participant E noted, "We don't meet at a designated time for social studies." Participant G agreed with others stating, "We have one day a week we meet, usually for language arts in my area. We actually don't meet on social studies because of the time spent on writing. Unfortunately, social studies are left out." Participants in departmentalized courses such as 6th-grade civics or are on different schedules, such as gifted education teachers, had different experiences. Participant B stated, "I meet with one other teacher for about 30 minutes once a week. If we are doing a joint project, we might meet more." Participant D noted that in gifted education, constant planning occurs each week. Participant J also stated being departmentalized allows teachers to meet 2 to 3 times a week on planning time.

Teachers engaged in collaboration and planning in diverse ways according to their responses. Participant J described collaboration and planning as sharing ideas and planning field trips. Participant H stated, "We talk about what works in social studies

and the time we must work on different projects. We share websites and articles." Participant F added, "We plan projects together and discuss ways to reach students in social studies. We discuss how we will use our technology to teach." Teacher participants in gifted education expressed that they plan and frequently collaborate due to a different schedule than regular education teachers. Participant D stated, "We do a lot of collaboration and planning. We plan how we will use technology with different content that students need to know related to 21st-century skills."

A few participants expressed that collaboration and planning for social studies do not occur regularly. Participant A noted, "I usually don't collaborate and plan with others for social studies." Participant C expressed that their team does not plan for social studies other than their school-wide project. Participant E added, "We do not have a set time to plan for social studies. There has not been a lot of collaboration among teachers other than discussing what we are teaching."

Most teachers' informal discussions were on assorted topics not related to technology in social studies instruction. Participant F stated, "Well, I don't think we have a whole lot of time, but when we do, we discuss projects, good sites where we can find social studies technology resources to use for instruction." Participant I noted, "We discuss curriculum and what standards we are covering." Participant J stated, "We discuss social studies programs, trips, contests related to history, lesson standards to be covered, and curriculum." One participant expressed, "Other than discussions we have had about the curriculum guide, and I would say social studies in our country has not been significant in recent years. Our textbook is out of date and not relevant to what

students should be learning. Our discussions have been about what area we are in in the text and what we are teaching." The issues of time, social studies technology resources, and social studies focus reoccurred throughout the interviews as barriers to integration of technology in social studies instruction.

**Research Question 3**

The third research question addressed how 4th-6th-grade teachers describe the support of their social system or organization regarding integrating technology into social studies teaching and learning. The interview questions from the third category, Social System Support, addressed RQ 3. The interview question responses formed the following themes for this section: school and district support and professional development for technology integration. The participants discussed the technical and academic support offered to teachers to integrate technology in social studies instruction. Most participants were not aware of technical support teams in their building besides the help desk, a call system for troubleshooting technical hardware problems.

Teachers were not aware of joint problem-solving groups in the district that support technology integration in social studies instruction, and some felt the need to explore further information about joint problem-solving groups in the district. District support in terms of professional development for integrating technology in social studies instruction was not noted by teachers. Participants were aware of the curriculum department for social studies that offered some social studies technology resources. Participants noted that the district had many types of professional development

opportunities available, and some training dealt with technology with other content, but most participants were unaware of training available for social studies instruction.

**Theme 3: School and District Support**

The third theme emerged from the responses to interview questions about the school and district's support in integrating technology in social studies instruction and learning. The support of a social system is an essential factor in motivating teachers to integrate technology into content areas such as social studies. Social systems consist of an organization or any other external or internal influences (Uluyol & Sahin, 2016). Based on the interview responses, most participants did not often ask for help and usually tried to solve problems independently. Others enlisted help only during the school-wide fair once a year. Some participants also expressed that working together and offering help to one another in technology integrated instruction was occasional. School-wide projects requiring group or team effort were the only times when help was enlisted, or input was needed. Participants who taught in gifted education programs, however, offer help and receive input from teachers on their team often and sometimes every day. Gifted education teachers expressed that they often shared technology social studies resources and helped other teachers on their team when needed." Most of the participants stated they were not aware of a technology team in their building and discussed diverse ways in which technical issues were managed in their buildings. Several participants expressed that teachers help each other with technical issues. Others stated one person oversaw printer problems, and Participant E noted that they rely on individual teachers in their building who have expertise in troubleshooting technology. Participant I stated,

however, that their tech team consisted of teachers who have the technical knowledge and can troubleshoot most problems but do not necessarily have an official title of a technical team. One participant also shared that they haven't had any experience of a technical team coming to the school to teach anything new about technology.

Overall, teachers stated that they were unaware of district support. Participant A mentioned the curriculum department was geared towards middle school. Participant B stated, "They just throw out there, the social studies material. The books are old. I don't know if it's a priority with them." Participant E noted, "The district provides the help desk for technical issues. Other than that, I am not aware of instructors or support staff for social studies coming out." Participant F agreed that they were not aware of district support for social studies in instructional staff. Participant G expressed that many email correspondences are sent but none about social studies. Participant H explained that the possibility of any type of district support in helping with technology in social studies had not been explored. Participant J added, "The district offers a lot in the form of technology training, but I am not sure if the training is for social studies or history concerning technology." Some participants admitted to not exploring the possibility of social studies district support because they felt there was not a focus on that subject area. In the district, joint problem-solving groups to support teachers in integrating technology in social studies instruction were not apparent. Several participants agreed that they were unaware of any joint problem-solving groups for teaching with technology in social studies. Participant A stated that problem-solving groups may be available but was not sure about social studies support groups. Other participants expressed there were no

problem-solving groups to aid teachers in technology integration. The only positive technical support participants continued to mention was the help desk, a system used to identify and repair technical problems in the district. Again, teachers expressed the lack of district focus and inadequate technology resources for integrating technology in social studies instruction.

**Theme 4: Professional Development for Technology Integration**

Theme 4 was emerged from interview question responses related to professional development as a form of district support for teachers to integrate technology in social studies instruction and learning. Pieters and Voogt (2016) assert professional development is a positive measure used to enhance professional practice. Several teachers noted that the district offered professional development for technology learning and technology integration in the high stakes test content; however, teachers were not aware of professional development training to integrate technology in social studies instruction. Participant J stated, "The training I know of consists of how to access different websites and technology resources from the internet to use for teaching. It was a general training, more like a resource site-based training." Participant C expressed, "I cannot describe any because I have not kept abreast of technology integration. Everyone is working on certification workshops and other mandates in language arts, math, and science because these subjects are assessed." Participants D, E, and F stated that training was available, but they were not aware of focusing on social studies instruction with technology. Participant I admitted to not exploring the possibility of social studies support because there was not a district focus on that subject area. Professional

development is a prominent position of the Florida district that is the focus of this study. The district technology plan emphasizes the importance of professional development training for technology integration in the content areas. The consensus was that participants were not aware of the availability of professional development or agreed that professional development training did not target integrating technology in social studies instruction.

Teachers noted that focus on social studies content, minimal time for social studies instruction, and the lack of technology resources were barriers to integrating technology in social studies instruction and learning. Concerning social studies as a content area, Participant C stated that teachers meet every Monday to discuss language arts and math subjects, not for social studies. The meeting is for language arts and other state accountability-tested subjects. Participant H further explained that teachers do not meet to collaborate and plan for social studies instruction; however, they do meet regularly for language arts and writing. Participant A expressed, "I would say social studies in our country has not been of significant importance in recent years." Participant G noted, "I would definitely like to see technology playing a huge role in social studies instruction. The fact is social studies gets left behind." Concerning technology resources and time spent on social studies, participant G stated, "I would want to have more time and resources to teach social studies." Several of the participants expressed that social studies instructional time was minimal and as a result, they were unable to have students engage in the technology-related activities discussed. Participant G explained, "I don't

include technology in social studies teaching due to a lack of resources, and participant A stated, “The skill and resources are not there. Social studies are a lost subject.”

The lack of knowledge of technology in various areas and the lack of school and district communication and support were areas the study participants identified as reasons for not integrating technology in social studies instruction and learning. The district technology plan states that technology integration in all subject areas is a district goal (Duval County Public Schools Technology Plan, 2018). The ISTE technology standards for teachers require teachers to become experienced in the use and integration of technology to provide appropriate technology-related experiences for students (ISTE Technology Standards).

**Summary of Research Question Results**

Research Question 1 asked, “How do 4th-6th-grade teachers demonstrate their knowledge of the innovation in regard to technology integration in social studies teaching and learning?” The first research question was answered by interview questions related to the knowledge and use of technology and technology integration in social studies content and practice. Teachers’ perspectives varied in their understanding and knowledge about computer technology and technology integration in social studies instruction. Teachers' perspectives centered on the amount of time spent on computers exploring related to the amount of knowledge and ease of use. Teachers shared that online activities, district reading programs, and social studies infused language arts lessons were used in social studies instruction. Technology integration methods used for social studies instruction were also varied. Teachers shared that online program

resources and Achieve 3000; an online social studies-related reading program was used to integrate technology in social studies instruction. Teachers' perspectives on their understanding of technology in social studies instruction were that more time and experiences are needed to become more proficient in their teaching and learning practices in social studies instruction.

Research Question 2 asked, "How do 4th-6th-grade teachers describe their communication channels or how teachers relate to others in their educational environment in regard to integrating technology into social studies teaching and learning?" The second research question was answered by the interview responses regarding collaboration and planning and teacher support in their building. Wani and Ali state, communication systems are channels through which users share and transfer information among people. The communication system is needed to share information about innovations through a social system (Wani & Ali, 2015). Participants' communications about social studies occur at various times. Teacher participants in grades $4^{th}$-$5^{th}$ grades shared that there were no scheduled meeting times for social studies planning. Sixth-grade teachers participated in departmental scheduled meetings, which allowed more time to collaborate and plan. Participants' perspectives revealed that social studies were not a focused subject in the district and integrating technology in social studies instruction was seldom discussed in meetings or collaborative planning activities. Participants' informal discussions did not pertain to technology infused social studies lessons. Teachers' perceptions of communication, collaboration, and planning of

technology integration in social studies revealed that increased communication was needed in the schools and between teachers and district leaders.

Research Question 3 asked, "How do 4th-6th-grade teachers describe the support of their social system or organization in regard to integrating technology into social studies teaching and learning?" The third research question was answered by interview questions that addressed district support in terms of professional development and district problem-solving groups for technology integration in instruction. According to Wani and Ali, the social system provides support in a school system to assist users in becoming successful users of the innovation. Social systems provide various support such as moral support, technology resources, technical support, and training through professional development to enable users to adopt an innovation (Wani & Ali, 2015). Participants shared that they were not aware of problem-solving groups in the district to support social studies technology integration. Participants described various building-level support for technical problems; however, technology teams did not exist to support technology integration in social studies instruction. Participants were aware of professional development for technology learning; however, the consensus was that participants were not aware of professional development for integrating technology in social studies instruction. Teachers' perceptions of school organizational support in integrating technology in social studies instruction indicated active support groups should be offered in school buildings to support technology use and integration and professional development in technology integration in the content area of social studies should be offered that will provide ongoing practice in the context of the school. All participants'

interview responses evidenced different teaching levels that appropriately combine content, technology, and teaching practices. Participants stated that barriers to technology integration in social studies instruction include a lack of focus on social studies on the 4th-5th grade levels, lack of time, lack of scheduling, and limited technology resources.

I will now discuss triangulating document reviews with interview and question data analysis. The 4th-6th-grade curriculum guides offer various online resources that promote technology use; however, techniques for integrating technology were not suggested in the guides. The district's technology plan offers a comprehensive plan to include technology in all content area instruction. Teachers' technology standards require teachers' behaviors, knowledge, and skills to be aligned with the successful integration of technology in instruction. The district's technology plan and the technology standards state teacher expectations and district goals for technology integration in all content areas. Results from the interview and question data noted that although teachers in this district regularly use technology in instruction, there was little evidence of appropriate engagement with technology, and there was minimal use of technology by students to collaborate, create original projects for learning, problem-solve or conduct research as a part of ongoing instruction in the content areas (AdvancEd Accreditation Engagement Committee, 2018).

**Overall Conclusions**

Overall, teachers felt that district social system support to integrate technology in social studies instruction and learning was inadequate. The study's findings reflected the

necessity for the schools and the district to build more cohesive learning communities to support teacher practice, provide guidance and support for teachers, provide more effective communication between district leaders and teachers, provide teacher engagement in more meaningful collaborative relationships, and provide effective targeted school-based professional development for teachers. The MASLEPT model will meet the needs of the district social studies teachers to address the needs identified in the results of the data analysis. The model is embedded in the school day, providing daily practice, embracing a community of practice based on the constructivist theory. A 3-day workshop was created to focus on preparing teachers to implement the model in the schools. Teachers will improve technology integration skills during the 3-day workshop which will provide teachers with experiences and simulations in lesson study, modeling technology integration skills, collaboration, and methods of reflecting on knowledge learned.

**Discrepant Cases**

According to Creswell (2012), researchers should be aware of data that may conflict or are inconsistent with the study findings. During data analysis, I addressed possible discrepant cases by analyzing interview transcripts and notes to identify conflicting evidence or conclusions that may alter the study's findings. This process aided in eliminating disparate information and ensured the credibility of the research. No discrepant cases were found.

**Data Validation**

Data validation establishes the accuracy and validity of research findings. Yin (2014) recommends member checking in participant feedback on interview transcripts to provide accuracy and validity of the data. According to Walden University, IRB standards data were collected and analyzed with detailed descriptions for member checking by participants for accuracy. After transcribing and analyzing the interview responses, member checking was done with participants. Participants reviewed their transcribed responses and provided feedback. There were no edits or corrections requested from the review of the findings. Transcripts provide evidence of the steps to ensure the quality of the research. Yin (2014) and Creswell (2012) recommend triangulation as a means of providing accurate and convincing results in research studies. Triangulation of two data sources: interviews and district-approved documents were used to develop themes.

As identified in interviews with study participants, it appears, teachers are experiencing challenges in the practice of technology integration in social studies instruction at the 4$^{th}$ through 6$^{th}$-grade levels (participants A-J communications). During the process of data analysis, I discovered that several factors could be addressed in the district and schools that may be contributing to the lack of technology integration in social studies instruction. Providing technology training on targeted levels; providing a platform for more effective collaboration and communication between school and district personnel and providing optimal district support were key factors participants felt could improve and sustain technology integration in social studies instruction. Overall,

participants stated that professional development was offered at the district level; however, the professional development was not targeted towards technology integration in social studies. An analysis of the interviews and district-approved documents led to the emergence of several themes: perceptions of knowledge, value, use, and technology integration, communication, collaboration, and planning, school and district support, and professional development for technology integration. Based on the analysis of the data, an appropriate project to address the problem would be an ongoing embedded professional development plan based on best practices and current research. In this plan recommendations of processes and practices will be provided for the district and school implementation of the professional development plan to address concerns identified from the participant interviews to align with the district's technology plan.

This comprehensive professional development plan will be ongoing and provide time for lesson study, collaboration and planning, modeling, and reflection. The themes identified through data analysis will guide the planning of the targeted goals of the professional development plan.

The lack of knowledge of technology in various areas and the lack of school and district communication and support were areas the study participants identified as reasons for not integrating technology in social studies instruction and learning. The district technology plan states that technology integration in all subject areas is a district goal (Duval County Public Schools Technology Plan, 2018). The ISTE technology standards for teachers require teachers to become experienced in the use and integration of technology to provide appropriate technology-related experiences for students (ISTE

Technology Standards). The study's findings were based on Rogers' (2003) Diffusion of Innovations theory, the conceptual framework of this study. The framework was used to explore the lack of proficiency in technology integration in social studies instruction and learning. Rogers' theory explains how innovations spread and are adopted within an organization. Wani and Ali (2015) describe Rogers' explanation of diffusion as a process by which an innovation is introduced through communication channels over time among members of a social system.

## Conclusion

This qualitative exploratory case study was designed to address an existing problem of the lack of technology integration in social studies instruction with 4th-6th grade teachers in the DCPS. To gain an understanding of the phenomenon, interviews were conducted with a purposeful sample of social studies teachers. The use of interviews and district-approved documents as data collection tools informed this qualitative case study. The methodology of the study was presented in Section 2 describing the rationale for the study design and approach; participant selection; data collection procedures, data analysis, and credibility of the findings.

The data collection process was sequential including conducting semi-structured interviews and review of district-approved documents. Data collection involved a purposeful sample from two middle schools and three elementary schools in the DCPS. Ten teachers, two from 6th-8th grade middle schools, three from k-5 gifted elementary education programs, and five from regular k-5 elementary education programs shared their perspectives to gain insight on the phenomenon of the study. Interviews were

transcribed, analyzed, coded, and interpreted to identify emergent themes. Findings from interviews were triangulated with document reviews to validate the credibility and accuracy of the findings. Member checking was employed to ensure the findings reflected the accuracy of the participants' perspectives. Finally, the findings of the study were used to develop a comprehensive professional development project.

Section 3 contains an outline of the project developed to address the findings of the study. This section includes the rationale of the project, a review of the literature including the supporting framework of the study, a description of the project, and an evaluation plan to measure the effectiveness of the plan. The comprehensive professional development plan is found in Appendix A. The project will focus on a professional development plan for teachers to build on and support technology integration in social studies instruction.

Section 3: The Project

## Introduction

Professional development is advantageous in aiding teachers to adjust instructional strategies to optimize student learning. Professional development training provides collaborative support that aids teachers in improving practice (Liu et al., 2018b). Professional development is effective in developing teachers' overall disposition, confidence, and competence in technology use, and it supports collaboration among teachers in the school setting (Mitchell et al., 2018; Pieters & Voogt, 2016; Winslow et al., 2014). Professional development training also provides a platform to gain collective ideas, practices, and insights from other teachers involved in training.

The purpose of this qualitative exploratory case study is to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology in terms of the potential for properly integrating technology in studies instruction. Based on the study's findings, I developed a three-day professional development training to prepare teachers to participate in a daily embedded professional development practice that will address teachers' needs. The technology-based plan will help teachers integrate technology in social studies instruction to enhance students' learning of 21st-century skills. The professional development model chosen for the project study is the Mastery of Active and Shared Learning for Techno-Pedagogy (MASLEPT).

## Project Description

As a result of the research findings in Section 2 the professional development model chosen for the project study is the Mastery of Active and Shared Learning for Techno-Pedagogy (MASLEPT). Ndongfack (2015) defined the MASLEPT model as a school-based professional development model based on research-based best practices in teacher training on technology integration in instructional processes. According to Ndongfack (2015), the MASLEPT model embraces three fundamental principles: teacher's Technological Pedagogical Content Knowledge (TPACK), which is paramount in the teaching and learning practice; lesson study, which requires teachers to meet regularly over time to work on the design, implementation, feedback, and improvement of instructional research lessons and social constructivism, a process in which learners construct their knowledge based on existing understandings. The model will motivate teachers to engage in active learning and gain meaning from learning technology integration skills and implementing what is learned. The model also endorses a community of practice that involves groups of teachers engaging in a common purpose and goal (Green et al., 2014; Ndongfack, 2015; Vinathan, 2020). The purpose of the MASLEPT model is to support teachers in integrating technology in social studies instruction to enhance students' learning of 21st-century skills. The overall goal of the project is to support and empower teachers to properly incorporate computer technology into social studies instruction and learning. This plan will incorporate the support of all stakeholders in providing needed coaching and resources available for technology integration in social studies instruction. This plan aims to promote daily practice and

engagement with technology in student learning with teachers as facilitators as students create their own knowledge and learning. The plan is for local school and district personnel to engage in daily embedded practice using the MASLEPT model to sustain growth in teacher practice and student improvement.

## Rationale

A professional development model was chosen to develop a district plan based on the research findings to increase the integration of technology in social studies instruction. According to Cavendish et al. (2020), professional development is recognized as the most prominent means to improve teaching and improve student achievement. Professional development is a strategy that school organizations use to ensure that educators continue to strengthen their practice throughout their careers. Professional development is also a way to introduce the curriculum and pedagogical reforms (Cavendish et al., 2020). Effective professional development can improve teacher and school practices; however, the most effective professional development engages teachers' teams to focus on their students' needs. Johnson and Golombek (2016) assert that professional development training allows teachers to learn new innovative instructional practices that result in student achievement.

The MASLEPT model is the appropriate professional development model to address the study's problem and research findings. The MASLEPT model will provide TPACK through lesson study and opportunities in the classroom and school setting to work on design, implementation, and improvement of instructional research-based lessons (Liu et al., 2017; Ndongfack, 2015). As a professional development model, the

MASLEPT model will also allow teachers to construct their knowledge based on existing understandings (Egan et al., 2019; Sahin, 2006). According to Waid (2015), teachers' perceptions and beliefs determine their level of technology integration. According to the research findings (Abdazimkyzy, 2020; Chou, 2019; Danilewicz et al., 2019; Garcia & Weiss, 2019; Tondeur et al., 2016), professional development is necessary to target teachers' individual needs, which evidenced various TPACK levels and various technology implementation levels in social studies classrooms. This professional development model will enhance the district's technology training and provide targeted training to encourage teachers to integrate technology into social studies instruction. Carpenter (2019) asserts, the MASLEPT model focuses on what teachers teach, the misconceptions involved, and how learning is addressed. The MASLEPT model provides school-based training infused into the daily program and organized around collaborative problem-solving. The training is continuous and ongoing with follow-up and support for further learning (Carpenter, 2019). Finally, the MASLEPT model is connected to a comprehensive change process focused on improving student learning (Doğan & Adams, 2018; Gaffner, 2015).

## Review of the Literature

In this section the scholarly literature of current research on professional development models, benefits, and the components of models needed to change technology integration practice in social studies instruction successfully is reviewed. Continuous embedded professional development provided for teachers in a community of practice was found in the literature to cultivate and sustain an environment conducive for

technology integration in the content areas, specifically, social studies instruction. A review of the current literature on technology integration and the necessary components needed to integrate technology in instruction was conducted. The following key terms were used in my search for peer-reviewed articles: *benefits of professional development, characteristics of effective professional development, technology integration in instruction, professional development for technology integration, training in teaching with technology, challenges in professional development models, collaborative professional development, and effective professional development.* Additional search terms used were *learning communities, differentiated instruction, and embedded practice.*

The research was derived from the Walden University library and the Purdue University Northwest library. I referenced peer-reviewed journals, scholarly books, and dissertations from Walden University library, along with some educational websites. My search also involved using the librarian's recommendations to use Google Scholar to widen my search for peer-reviewed articles within the dates needed. I accessed Academic Search Complete, Eric Education Source, the Florida district website, and the EBSCOhost-eBook collection to review the current literature on my topic. Identified themes included: *characteristics of effective professional development, positive attributes of professional development, challenges in teacher professional development for technology integration, communities of practice, and outcome evaluation.*

**Characteristics of Effective Professional Development**

Professional development programs should include specific features to be effective. Uslu (2017) evaluated a professional development program to determine the

effectiveness of improving teachers' pedagogy in technology integration. The author contends that effective professional development programs should include consideration of teachers' needs, teachers should be actively involved, the organizational culture of the schools should be a part of the program, and finally, professional development programs should have an outcome of an increase in teachers' knowledge and skills and increase student learning (Dearing & Cox, 2018; Uslu, 2017).

Collaboration is necessary for successful professional development. According to Fenton (2017), successful professional development occurs when teachers are allotted time to interact, collaborate, and learn from peers and colleagues about integrating technology in curriculum and instruction. In Fenton's study, teachers found collaboration in small groups more beneficial than whole group professional development training (2017). Training that supports collaboration in small groups based on teachers' needs provides effective professional development training to integrate technology in instruction.

Professional development training should be a district-wide shared vision that is considered within the context of the school. Tondeur et al. (2016) state that professional development training is an iterative process aimed at extending and updating teachers' professional knowledge, beliefs, and attitudes in the context of their work environment. Professional development training should involve teachers' learning of the meaningful use of technology in instruction with the support of their professional environment (Chou, 2019; Garcia & Weiss, 2019; Tondeur et al., 2016).

Ndongfack (2015) asserted that effective professional development models should:

- Focus on what teachers teach, including the misconceptions involved and the ways learning is addressed
- Be based on the goals and standards of learning and an analysis of student performance
- Involve teachers in identifying and developing learning experiences
- Be school-based and a part of the daily program
- Be organized around collaborative problem solving
- Be continuous and ongoing with follow-up and support for further learning
- Incorporate best practices in lesson plan implementation
- Provide opportunities to gain an understanding of the theory underlying knowledge and skills learned
- Be connected to a comprehensive change process focused on the improvement of school learning (Chou, 2019; Garcia & Weiss, 2019; Tondeur et al., 2016).

Professional development programs should not only result in teachers' improvement in practice but also improved student outcomes. According to Baird and Clark (2018), professional development programs should include an analysis of teacher implementation and student outcomes to ensure more relevant and robust training. The authors' study involved analysis of the Look Ahead model of professional development. Teachers engaged in 12 hours of professional development over a school year. Teacher grade-level teams collaborated on different subject area infused lessons. The program's

analysis showed areas of a lack of addressing teachers' needs, insufficient time to gain knowledge and skills, and a lack of opportunities to practice what was learned (Baird & Clark, 2018). The program's analysis also led to addressing teachers' further needs through targeted professional development in the following year and led to students' improvement (Baird & Clark, 2018; Cobb, 2016; Foschi, 2020).

A variety of experiences are needed for effective professional development. Beriswill et al. (2016) contended that effective professional development should provide content-rich presentations, direct activities, field experiences, collaborative activities, and reflections. The Global Academic Essentials Teacher Institute (GAETI) model was used in the study to determine improvement in teacher knowledge and skill in technology integration in content instruction (Agag & El-Masry, 2016; Beriswill et al., 2016). The GAETI model improved teachers' confidence in teaching 21st-century skills using technology by providing demonstration activities that integrated subject area content, successful practice in teaching, and ways to effectively integrate the most up-to-date and effective technologies (Beriswill et al., 2016; Preciado-Babb et al., 2019).

Technology-integrated professional development should be relevant to content knowledge taught. Crompton et al., (2016), Gunter and Reeves (2017) and Visone, (2019) discussed professional development for mobile learning and claimed effective professional development occurs when the topic is authentic, integrated, subject-specific, and consistent. These authors noted that professional development should be consistent with integrated subject-specific methods (Crompton et al., 2016). When professional

development is content and subject specific teachers become more equipped to facilitate students in authentic learning tasks.

TPACK should be a significant component of technology-based professional development programs. Harris and Hofer's (2017) study discussed the significance of TPACK as part of the professional development initiative for k-12 schools. Participants in the study argued that TPACK-focused professional development should be based on practice and personalized for teachers based on their needs (Harris & Hofer, 2017). Harris and Hofer's important beliefs about TPACK professional development training include: TPACK as a changing agent, implementing TPACK in teaching is more important than knowing about it, TPACK helps personalize learning, TPACK is built by teacher collaboration, and TPACK is distributed knowledge. Teacher learning is an essential part of successful technology integration and should include a combination of pedagogy, curriculum, technology, and content knowledge (Harris & Hofer, 2017; Vaughan & Beers, 2017).

**Positive Attributes of Professional Development**

Professional development training can aid in preventing anxiety concerning teaching with technology. Ghavifekr and Rosdy (2015) stated professional development training that provides the three stages of preparation, development, and improvement results in improved knowledge, attitudes, and competency about learning processes involved in technology integration in instruction. The way professional development is designed and delivered may affect teacher learning and student outcomes as well. Rutherford et al.'s (2017) study suggested that professional development can play an

important part in student outcomes depending on the design and delivery. Professional development that focuses on opportunities for proficiency may enhance teaching and teachers' self-efficacy (Abdazimkyzy, 2020; Danilewicz et al., 2019; Rutherford et al., 2017). Collaborative relationships are formed because of professional development. Shaari et al. (2018) and colleagues discussed partnerships formed because of professional development training. Shaari and colleagues propose partnerships that can be formed through professional development training that support efforts to bridge teacher learning and sharing. The authors asserted that the benefits of professional development partnerships include sharing of resources and efforts, connections across organizations, and promotes shared values and communication.

Professional development training can aid in providing comfort in the use of technology and different technology programs. Gonczi et al. (2016) sought to identify professional development implementation variables that may influence participant adoption of computer-based instruction. Dearing and Cox (2018), Eker (2020), and Gonczi et al. (2016) found that ongoing professional development with opportunities to acquire and practice new knowledge promotes communities of practice.

Programs that provide professional development can improve pedagogy as well as change practice in using technology in instruction. Grundmeyer and Peters (2016) researched the benefits of effective professional development programs for technology integration. Grundmeyer and Peters (2016) claim professional development programs should result in an amendment of pedagogy, develop 21st-century collaboration and critical thinking skills, and develop self-advocacy and confidence in technology use

Professional development models used to train teachers in technology integration have a variety of advantages. Thoma et al. (2017) used a Technology Integration Planning Cycle (TIPC) as a model to train teachers to integrate technology in instruction. The model aided teachers in setting instructional goals and in changing teachers' thinking and actions. Through the TIPC model, teachers could share and consider how other teachers used technology in instruction and learn alternative ways to use technology in instruction (Crompton et al., 2016; Thoma et al., 2017; Xie et al., 2017). The TIPC model helped teachers realize the benefits of using technology in instruction and student learning benefits.

Some models can provide an awareness of the interaction between technological, pedagogical, and content knowledge. Shaban and Egbert (2018) assert that CALL, Computer Assisted Language Learning, is a professional development model that is advantageous for developing technology integration in all content areas. The authors suggest that this model provides the best possibilities for teachers' success in integrating technology into content areas. The guidelines include:

- providing exposure to classroom realities
- providing support of content and pedagogy knowledge with the gradual introduction of technology
- Continuity of professional development opportunities
- Facilitate positive attitudes toward using technology
- Treat teachers as competent individuals

The CALL professional development model is based on the Diffusion of Innovation theory, which offers ways professional development facilitators can support educators through the Innovation Diffusion process (Raulston & Alexiou-Ray, 2018; Shaban & Egbert, 2018). During the knowledge, stage facilitators can provide teachers with information about hardware and software that is considered for use and why the innovation might be useful (Shaban & Egbert, 2018). During the decision, stage facilitators can aid teachers in making decisions based on the attributes of the technology (Shaban & Egbert, 2018). The teaching process may be enhanced during the implementation stage by the support of facilitators (Shaban & Egbert, 2018). Finally, during the confirmation stage, facilitators can help teachers through the innovation's previous stages. Classroom context should be considered to connect the skills and knowledge learned to the teachers' setting. This model also encourages the development of professional learning communities and personal learning networks.

Including prior experiences of teachers that shaped their beliefs about technology use can be a positive aspect of professional development programs. Er and Kim (2017) discussed the Episode-Centered Belief Change Model and asserted that different experiences with technology in instruction called episodes to help shape teachers' beliefs about the use of technology in instruction. Teachers' training was designed to help teachers change negative beliefs into positive, motivating beliefs about technology integration. Teachers in the study changed teacher-centered technology use to student-centered approaches (Er & Kim, 2017; Gillespy, 2020).

Mitchell et al. (2018) discussed the principles necessary for the integration of technology in social studies classrooms. The principles discussed were to (a) extend learning beyond what can be done without technology; (b) introduce technology in context, (c)foster the development of skills, knowledge, and citizenship; (d) contribute to research and evaluation of social studies and technology; and include opportunities for students to study relationships among social studies, technology, and society. The authors maintained that their study results showed that due to professional development in technology integration, a strong cohort of learning was developed among participants. Learning collaborations extended beyond the school with teachers attending and presenting at state-level social studies professional teaching conferences.

Some professional development models go beyond traditional professional development activities. Carpenter (2016) discussed "unconferences," also called Ed Camp, which is a voluntary, informal learning experience unlike traditional scheduled meetings with predetermined speakers. Ed Camps involved active learning and a great deal of collaboration without focused content or specific teaching and assessment (Carpenter, 2016).

The EDCITE model is a blended program that benefits teachers in integrating technology into instruction. Vongkulluksn et al. (2018) discussed the EDCITE model, a training on teacher evaluation of digital content to improve teachers' TPACK. Vongkulluksn et al. asserted that a well-designed blended professional development program that combines face-to-face learning with direct instruction, engagement in group projects, online activities with ongoing support, and connections with teacher cohorts in

school can be beneficial for aiding teachers in integrating technology in instruction. The authors also asserted professional development programs that prepare teachers to integrate technology in instruction should be cohesive, offering professional development activities that prevent frustration but have clear expectations and goals. Professional development programs should also provide relevance and alignment with teachers' context and teaching interests.

Cohesion and ongoing support are important to the process of training in technology integration in instruction and learning. Liu et al. (2018a) discussed teachers' views of an interactive pathway model provided by a large school district to support an iPad initiative. The authors stated professional development programs should include content focus, active learning, coherence, duration, and collective participation. The study results showed that classroom use of iPads changed from using iPads as a classroom management source to integrating iPads for student collaboration and learning in a student-centered environment (Liu et al., 2018b).

Partnership programs aid in teacher collaboration experiences that enhance technology integration in instruction. Winslow et al. (2016) compared the needs and value of instructional technology professional development program partnerships between school districts and local universities. The study was conducted to promote the university and k-12 school partnerships' benefits to prepare teachers to effectively integrate technology in instruction and prepare in-service teachers (Winslow et al., 2016). Partnerships provided innovative training and teachers opportunities to engage in collaborative experiences to promote student growth with technology in the classroom.

According to Stevenson et al. (2016), school leaders rethink the professional development types required to meet schools' current and future needs. School leaders should reflect on how they support and facilitate professional development programs, reflect on the influence of their perceptions, attitudes, and philosophies, and on how professional development is measured, evaluated, and accounted for (Mouza, 2019; Stevenson et al., 2016; Xie et al., 2017).

**Challenges in Teacher Professional Development for Technology Integration**

There are challenges in using professional development programs to train teachers to use technology in instruction. Tondeur et al. (2016) identified five challenges to teacher professional development for Information Communications Technology (ICT) in education. These challenges include:

- Social Cultural Awareness- professional development in support of technology should consider differences in social, cultural, economic, political contexts, and school cultures.
- Sustainability-professional development in support of technology should sustain large numbers of frequent teacher updates and reach and disseminate ideas.
- Empowering Pedagogy- professional development in support of technology should involve a social change in pedagogy and content.
- Discernment of Technology- professional development in support of technology should involve wise decisions about professional development techniques and processes.

- Systematic Professional Development- professional development in support of technology should ensure lifelong professional processes and a lifelong approach to learning technology integration (Tondeur et al., 2016).

Professional development training can affect teacher attitudes and practice in using technology in teaching and learning. Vaughan and Beers (2017) investigated the incorporation of iPads into classrooms through an exploratory teacher professional development initiative. The authors found attitudes towards and practices with technology were related to teacher training. Teachers were supported by iPads in instruction. Through their exploration, collaboration, and practice, teachers gained ease of use, support from colleagues, and found ways to incorporate iPads into daily instruction (Abdazimkyzy, 2020; Vaughan & Beers, 2017).

**Communities of Practice**

Dingyloudi et al. (2019) assert communities of practice have certain advantages to teachers and other education stakeholders. Using a Value Creation framework (Wenger et al., 2011) to investigate the value of communities of practice, Dingyloudi et al. (2019) found that communities of practice are supportive in terms of aspects of practice and peer feedback during participation. The authors also assert that communities of practice offer positive atmospheres for idea sharing, getting to know colleagues, and opportunities for discussions, negotiations, and sharing different perspectives (Dingyloudi et al., 2019; Holt & Nielson, 2019; Van Themaat, 2019). The authors also suggest communities of practice foster the support of activities that are valuable to

community members and serve as social structures in which learning values are formed (Dingyloudi et al., 2019; Holt & Nielson, 2019).

Van Themaat (2019) stated that communities of practice support the collective group purpose of learning for all stakeholders involved. A study done on the impact of professional learning communities found that educators can support and challenge each other through exchanges that promote learning (Holt & Nielson, 2019; Van Themaat, 2019). The impact of communities of practice can support educators in gaining knowledge of their students through inquiry that promotes differentiation, inclusion, and reflection of teaching practices (Van Themaat, 2019). Communities of practice offer opportunities for educators from different settings to think together and gain insight into different strategies, approaches, and experiences of educators from different settings (Dingyloudi et al., 2019; Holt & Nielson, 2019; Van Themaat, 2019).

Van Themaat (2019) and Dingyloudi et al. (2019) concur that broader ideas and knowledge are gained through communities of practice. Educators can capitalize on existing knowledge, strengths, interests, and talents of the education community. Other insights gained from communities of practice offer a bigger picture of educational practices rather than an individual focus on issues (Van Themaat, 2019).

Other research (Holt & Nielson, 2019) presents a different view of learning communities of practice based on student background, diversity, and engagement in the community of practice. Holt and Nielson (2019) found from a study of university students that learning communities had truly minor impact on learning. The authors felt

however that all learning communities are not equal in structure and implementation which they felt affected the results of the study (Holt & Nielson, 2019). The authors also stated that the participants had reduced faculty involvement and less support for student interaction and a limited time to collect the data rather than a longitudinal study presents.

**Outcome-Based Evaluation**

According to Duffus (2020) outcome-based evaluation support programs and services by examining changes in practice, knowledge, behaviors, and perceptions of stakeholders in educational and other programs. Duffus (2020) defines outcomes as the actual impacts, benefits, and changes participants undergo during or after a program expressed in terms of knowledge, skills, and behaviors. The purpose of Duffus' (2020) project was to develop a tool to decrease the barriers to using outcome-based evaluations in library school settings. The author noted that knowing how a group is impacted by its program is more important than the number of participants involved, and that outcome-based evaluation displays evidence of work done (Duffus, 2020).

According to Mince (2019), outcome-based evaluations inform practice through monitoring and evaluation. Outcome-based reforms emphasize setting clear standards for observable and measurable outcomes. Mince (2019) and Duffus (2020) agree that outcome-based evaluations are an effective means of focusing on what works and is effective in programs to improve practice. Mince (2019) discussed the goals of program evaluation which include:

1. Establishing a foundation and guide for future program development and improvement.
2. Identifying needs for institutional support.
3. Assessing the extent to which the program has achieved its objectives and determining the means to enhance this effort.
4. Evaluating the continued appropriateness of offering the program (Mince, 2019).

Mince (2019) and Outhwaite et al. (2020) concur that a thorough program evaluation report should include authentic assessments that inform program participants of effective practice as well as ineffective practice and what is needed to support the success of students.

Dyjur et al. (2019) described outcome-based evaluation as a cyclical process beginning with the forming of guiding questions about the program, reflections on program outcomes, collecting data from a variety of sources, developing an action plan and final report, implementing the action plan, discussing what was learned, and continuing assessment programs with adjustments. One key step in the outcome-based evaluation process is discussions and collaboration throughout the process and over time (Dyjur et al., 2019; Outhwaite et al., 2020). Outcome-based evaluation is a means of viewing an existing program to determine its value in making improvements over time to meet the goal of improved practice and student achievement.

## Conclusion

The International Society for Technology in Education (ISTE) asserts that the emergence of technology has reshaped the essence of learning and pedagogical practice

in educational settings worldwide. Given the role technology and the National Technology Standards play in guiding systematic change in schools, creating digital learning environments to prepare students for a global society, and providing professional digital models for the workplace, it is recommended that the Florida school district that is the focus of this study expedite its efforts to integrate technology in all content areas in the district. Utilizing technology for daily practice and remediation does not meet the standard of preparing students for their future. The practice of integrating technology in instruction and learning in social studies involves research, the creation of projects, and other technology-infused activities that promote student-centered learning. Professional development is an effective means of preparing teachers to engage students in learning with technology. Professional development will provide the knowledge and skills for teachers to aid students in engaging in authentic technology infused learning that will promote 21st-century skill acquisition.

## Project Description

Darling-Hammond et al. (2017) asserted effective professional development is content focused, incorporates active learning through the adult learning theory, and supports collaborative job-embedded contexts. The intent of the MASLEPT model project is for professional development to be an embedded part of the school day allowing time for lesson planning, implementation, modeling, and reflection done by teachers interchangeably. In the proposed model, teachers will complete lesson plans to incorporate technology in social studies instruction based on researched best practices and social studies state standards. Teachers will model the teaching of technology-

infused social studies lessons for other teachers as they observe. Reflection involves teachers discussing the observed lesson and offering input on what areas of the lessons were successful and what areas need improvement.

**Potential Barriers and Solutions**

A potential barrier to the implementation of the proposed professional development model is the time requisite for social studies teachers to complete the 3-day training and daily embedded professional development. Time is required for the three-day training and for the requisite daily embedded professional development which involves planning, lesson study, modeling, and reflection during the school day throughout the year. One solution is to complete the 3-day training and post planning after school or during PLC time once a week for 3-6 consecutive weeks. Another solution is if principals make the decision to adjust daily schedules to allow time for training during the day and planning, reflection, and review after school. Another barrier may be individuals' resistance to change. It is important to provide teachers who may be resistant to change with the opportunity to attend the 3-day workshop for professional development on the MASLEPT model project and be provided with additional monitoring and support.

The third barrier may be the lack of personnel needed for building support to fully implement the MASLEPT model project. Building support personnel can be trained at the beginning of each school year to prepare new teacher support staff to use the MASLEPT model project. Fluctuation of staff due to teacher attrition will continue to be an issue for schools according to the National Center for Education Statistics (NCES). A

solution is administrators or lead teachers can acclimate teachers to schedules and training related to the MASLEPT model project to provide a smooth transition to the program.

**Proposal for Implementation and Timetable**

Three Day Professional Development

The 3-day professional development is designed to prepare 4th-6th-grade social studies teachers to implement the MASLEPT model project during the school day. The 3-day workshop will be presented during the first week of teacher planning to 4th-6th - grade social studies teachers. Day 1 consist of the whole group introduction of the MASLEPT model project and its components to 4th-6th grade social studies teachers. The purpose, rationale, goals, and strategies will be presented to social studies teachers in grades 4th-6th. Breakout sessions in small groups will provide information on TPACK, Lesson Study, Collaboration and Planning, and Daily Reflections.

Professional development facilitators will model the components of the MASLEPT Model project on Day 2. Social studies teachers will observe facilitators model a lesson study meeting and teach a technology integrated lesson. According to Ndongfack (2015) the underlying principle of lesson study is for groups of teachers to meet regularly over an extended period, to work on the design, implementation, feedback to improve instruction. Technology integrated lessons involve teachers combining content knowledge and pedagogical knowledge with technological knowledge to teach research-based technology integrated lessons. Collaboration and planning and reflections will also be modeled by facilitators on Day 2. Facilitators will discuss ideas on

technology infused lessons, reflect on lessons taught, and plan improvements for future lessons. The second half of Day 2 will engage teachers in modeling components of the MASLEPT professional development model. Day 3 of professional development involves breakout sessions where teachers will rotate to learn about the following topics: Technology and You, Working as a Team, Modeling and Scheduling, Timing and Consistency, Making Lesson Study Valuable, and Learning from Reflections. These sessions will aid teachers in gaining the most from the MASLEPT project. The proposed model will be implemented for 3 years with evaluation at the end of each year.

The first-year 4th-6th-grade social studies teachers will pilot the use of the MASLEPT model project. Teachers will complete a self-reflection on the first day of the 3-day professional development to assess technology use in social studies instruction in the classroom. The implementation of the MASLEPT model project will continue for social studies teachers in the district as administration approves the continuation after evaluation of the program at the end of the third year.

The proposed timeline of implementation is from August to June of the school year with the following events.

**Implementation for the School Year**

**Table 2**

*Implementation (Timeline Overview of MASLEPT Professional Development)*

| Year 1 | Activity | Participants | Hours of PD |
|---|---|---|---|
| August | Administer Classroom Rubric to assess | Teachers | 1 Hour |

| | | | |
|---|---|---|---|
| September | 3-Day PD on the Project | Teachers | 18 Hours (6 per day) |
| Oct.-May | Embedded PD MASLEPT model based on data analysis | Teachers, Admin., Reflective Coach, Teacher Leads | 10 Hours/wk. |

**Table 3**

*Implementation (Timeline Overview of MASLEPT Professional Development)*

| Year 2 | Activity | Participants | Hours of PD |
|---|---|---|---|
| August | Administer Classroom Rubric to Assess (new teachers) | Teachers | 1 Hour |
| September | 3-Day PD on the Project | Teachers (new) | 18 Hours |
| Oct.-May | PD Based on Data Analysis in PLCs | Teachers, Admin. | 3 Hours |
| Oct.-May | Teachers implement/ Observe | Teachers, Admin. | 10 Hours wk. |

| | | | |
|---|---|---|---|
| | MASLEPT model<br>Technology-infused lessons | Reflective Coach, Teacher Leads | |

*Implementation (Timeline Overview of MASLEPT Professional Development)*

| Year 3 | Activity | Participants | Hours of PD |
|---|---|---|---|
| August | Administer Classroom Rubric to assess | Teachers | 1 Hour |
| September | 3-Day PD | Teachers | 18 Hours |
| Oct.-May | PD Based on Data Analysis in PLCs | Teachers, Admin., Reflective Coach | |
| Oct.-May | Embedded PD MASLEPT model based on data analysis | Teachers, Admin., Reflective Coach, Teacher Leads | 10 Hours wk. |

**Daily Implementation of the MASLEPT Model Project**

| Title | Explanation |
|---|---|
| Planning and Collaboration<br><br>The members of the Lesson study group (administration, teachers, team leads) collaborate and plan the technology infused lesson. | Planning and Collaboration<br>Administrators, teachers, and team leads confer to establish:<br>• The guiding question is agreed upon by the instructor and the reflective coach.<br>• The desired learning results of the technology infused lesson<br>• The activities or work that the students will perform to achieve the specified outcomes.<br>• Demonstration of student achievement.<br>• Other student or instructor habits that the instructional coach should keep an eye out for. |
| Teach and Model<br>One member of the Lesson study (teacher) group teaches the lesson for other teachers to observe. | Teach and Model<br>The teacher and team lead deliver the intended technology infused lesson and collect data on:<br>• The significance of the learning outcome to the unit.<br>• Students' level of proficiency in relation to the learning outcome.<br>• The work of the students, as well as the nature of that work related to the use of technology<br>• The teacher's teaching techniques. |

| | |
|---|---|
| | • The teacher's instructional decisions made during the class. |
| Observation<br>Observation of the technology infused lesson. | Observation<br>Administrators, teachers, and team leads observe<br>the teacher will teach the technology infused lesson. |
| Reflection<br>Group reflection of the technology infused lesson is done to determine the success and improvements of the delivery of the lesson. | Reflection<br>Administrators encourages the meeting by having the lead teacher serve as a moderator. Teachers discuss and offer input:<br>• The relevance of evidence for learning is determined by teachers.<br>• Teachers remember the evidence that led to the conclusions.<br>• Teachers compare the lesson plan to the actual lessons delivered.<br>• Teachers decide whether they should change the lesson plan.<br>• Teachers make inferences about the relationship between teacher training, decision-making, and actions and student behavior or achievement. |
| Refinement<br>Improvements on the lesson plan and execution. | Refinement<br>Teachers make improvements on the lesson plan based on data collected during the teaching of the technology infused lesson. |

Within the school year, there are at least four ways to foster job-embedded learning.

Professional development in the classroom may take one of three forms: modeling, team teaching, or observation. The coach can model a particular strategy depending on where the instructor is in the process. When a new instructional strategy is being used by the teacher, the coach may function as a team teacher, directing the classroom teacher as required.

Periods of Preparation and Discussion—Job-embedded professional development and reflective coaching should include time for planning and discussion. Meetings between the instructor and the reflective coach will be scheduled on a regular basis during the teacher's PLCs.

Common planning time (PLCs) will be used for analyzing student work or brainstorming new instructional strategies. This time is used to share the team's reflective inquiry or intervention analysis.

Restructured Days—The teachers and reflective coach will integrate new knowledge from the embedded training into the ongoing professional development plan.

**Roles and Responsibilities**

The administrative team consists of principals and assistant principals. The administrative team's role is to be available during daily job embedded professional development to monitor the implementation of the components of the MASLEPT model for professional development. The administrative team will complete daily walkthroughs, provide feedback to teachers, and facilitate during PLCs. School social studies curriculum team, teacher leads, and teachers' roles are to complete evaluations and reflections during the year and at the end of the year. The District Social Studies

supervisor and school teams will meet to evaluate/ reflect/ revise the project for the new year. Department chairs and lead teachers' roles are to engage in lesson study, planning, and implementation and feedback.

As a researcher my role is to utilize the related research and findings from the data analysis to design a project that addressed the problem. The research problem investigated was the lack of proficiency in integrating technology in social studies instruction. In collecting my data, I collected 4th -6th-grade social studies teachers' perspectives on integrating technology in social studies instruction and the barriers that may prevent teachers from doing so. The research findings revealed various degrees of integration and various barriers teachers perceived that limited the integration of technology in social studies instruction. Therefore, my role was to choose a professional development model that would meet teachers' needs in these areas. The Mastery of Active and Shared Learning Processes for Techno-Pedagogy (MASLEPT) model was chosen. The MASLEPT model has three significant components: (a) assessing the learning needs of participants to pinpoint instructional targets, (b) lesson study in which teachers work in groups to design and implement lessons over a period of time and receive feedback to improve practice, and (c) teacher interaction in which teachers construct new knowledge, work collaboratively, and reflect on practice that leads to positive changes in practice (Baskarada, 2014; Harris & Hofer, 2017; Ndongfack, 2015).

My primary responsibility as a researcher was to create a project that will enhance the districts' technology plan and help teachers improve proficiency in integrating

technology in social studies instruction and other content areas. The process in which the project based on the MASLEPT model was developed included the following steps:

- Analysis of the research findings
- A literature review of research best practices on professional development
- A PowerPoint presentation was created based on my study's findings, significant professional development elements of the PD plan, and the MASLEPT model components (Appendix A).
- An implementation plan for the project based on the MASLEPT model for technology integration with necessary resources was developed in a graphic organizer.
- An evaluation plan for the project based on the MASLEPT model for technology integration in social studies instruction. Where is this?

The professional development project's success will depend on the district's support in incorporating the model into the current technology plan and professional development repertoire. The project's success also depends on teachers' effective implementation of the MASLEPT model project. The responsibility lies in the district stakeholders, specifically, principals and district personnel provide support as teachers participate in and implement professional development training related to technology integration in social studies instruction. After presenting the project to the district, my role will change from project developer to advocate and proponent of the MASLEPT model project. As a researcher, I will reflect on how my research and subsequent project study can benefit my learning community. As a scholar, practitioner, and leader, I will

continue to research to determine the far-reaching benefits of technology integration in instruction and learning and continue to be an advocate for change in the way technology is utilized in instruction, specifically social studies, for student improvement in learning 21st century skills.

**Potential Resources and Existing Supports**

The necessary resources and supports are essential to the success of the implementation of the MASLEPT model. Potential resources available for the professional development training are interactive whiteboards, Duval County Public Schools (DCPC) online toolbox for social studies resources and interactive tools, and the web-based DCPS E-Library resources. These resources are essential to creating and present technology-based activities for teachers' instruction and learning.

Existing personnel supports will include the Director of Technology Innovation and the District Director of Technology Field Support. This support team will monitor and maintain the district's technology and identify the supports needed for teacher learning throughout the training. Other support personnel are the district social studies supervisor (lesson plans), Professional Development Coordinator (oversee and review professional development), principals (leadership support, scheduling), team leaders (engage and model), coaches (engage and model), school leadership team (engage, model, and review). The district's website offers various professional development resources that will target the different technical knowledge and learning levels of social studies teachers. It is proposed the district website will be the host for the professional

development based on the MASLEPT model. This project could promote interactions with resources and activities focused on technology integration capabilities.

The MASLEPT model project involves lesson study, collaboration and planning, modeling, and reflection. Teachers can engage in lesson study before or after school. Lesson study involves group study, discussion, and research of best practices in technology integration and collaboration on lesson planning of technology-infused lessons. Modeling and observations should be conducted at scheduled times during the school day depending on teachers' planning time or times when teachers schedule to be observed during the day. Reflections can be done after observations and modeling and shared during the lesson study time each morning.

## Project Evaluation Plan

### Type of Evaluation and Justification

The professional development training's intended purpose is to provide the district with an additional effective research-based approach that will support teachers in incorporating technology, thus improving student learning of 21st-century skills. Successful results from using the MASLEPT model will be justified by using an outcome-based evaluation. An outcomes-based evaluation will evaluate the process of continuous improvement of technology integration in instruction and learning. According to Mthoko and Pade-Khene (2017), outcome-based evaluation is an appropriate form of evaluation because this process is used for continuous improvement in achievements or changes in skill, knowledge, attitude, and behavior for program participants' education and similar fields. Malach & Malachová (2018) concur that

outcome-based evaluations identify and measure results against a project or program's goals and objectives. Professional development can be an excellent tool to assess various technology integration levels and offer ways to train and improve teachers' skills in this area. An outcome-based evaluation aligns with the professional development project. An outcome-based evaluation is designed to assess the learner acquisition level to determine if learning objectives were achieved as intended (Malach, & Malachová, (2018).).

Evaluation of the professional development project based on the MASLEPT model will be conducted by the professional development coordinator, elementary principals and middle school principals, and the school leadership team, who will oversee and review the professional development training.

**Overall Goals of the Project**

Goals for MASLEPT Professional Development Project**:**

**Project Goals**

1. Teachers gain knowledge of the integration of technology in social studies instruction.
2. Teachers gain knowledge of the Technological Pedagogical Content Knowledge process and its advantages in terms of integrating technology in social studies.
3. Teachers gain experience in collaborating and planning and discuss strategies to improve communication among social studies teachers regarding technology-infused social studies instruction.

4. Teachers engage in modeling, and the use of best practices in technology-infused social studies instruction.
5. Teachers become knowledgeable of the effective implementation of technology in the social studies curriculum.

**Evaluation Goals**

The professional development training's evaluation goals are to identify evidence that credibly demonstrates the change in technology integration in social studies instruction and learning and to ensure a continuous cycle of improvement through training and education for teachers to properly integrate technology into social studies instruction and learning. Evaluation of the project is imperative to its success; thus, the district's education officials should conduct a regular and systematic evaluation using teacher surveys and needs assessments as evaluation tools.

The evaluation will target the following outcomes:

1. Teachers demonstrate knowledge of integration of technology in social studies instruction by facilitating students in the use of technology in social studies.
2. Teachers demonstrate knowledge of the technological pedagogical and content knowledge process by choosing learning experiences for students that integrate technology in social studies instruction.
3. Teachers demonstrate collaboration and planning with colleagues weekly to improve technology-infused social studies instruction.

4. Teachers demonstrate modeling, and the use of best practices in technology-infused social studies instruction.
5. Teachers will demonstrate knowledge of the effective implementation of technology in the social studies curriculum.
6. How will achievement of the goals be measured?

The key stakeholders relative to the professional development project include the district's superintendent, the district technology director and coordinator, building administrators, teachers, and students. The technology director and coordinator are essential to the success of all technology-related endeavors as they are responsible for all aspects of the district's technology integration initiatives. Building administrators are essential in influencing teachers to agree with and take part in professional development training. Their willingness to adopt the MASLEPT model project for their staff as ongoing professional development embedded in the school day will involve modeling, lesson study, collaboration, and reflection completed by respective teachers. The MASLEPT model project is designed to deliver technology-based professional development opportunities to teachers to support technology integration practices in social studies instruction in the classroom (Ndongfack, 2015); thus, the project's success depends on the willingness of stakeholders to implement the model. The educational benefits for teachers and students will determine the project's success.

# Project Implications

## Importance of the Project to the Local Community

Matheson (2018) stated that the use of technology in instruction enhances learning by offering different instruction modes and allowing students to construct their knowledge. Therefore, the project based on the MASLEPT model can address educators' needs in the Florida district's social studies teachers' community. The MASLEPT model can be generalized to other school systems to provide daily embedded technology based professional development in social studies as well as other content areas. The research findings revealed current professional development practices focus on technology implementation training but not targeted training to successfully integrate technology in meaningful ways. The concern of the professional development training was the lack of focus on teachers' personal growth regarding technology knowledge, TPACK strategies, and project-based technology experiences. The MASLEPT model focuses on TPACK knowledge as a foundation of technology integration. Through the MASLEPT model, teachers in the local community can engage in lesson study, modeling technology-integrated lessons, and collaboration during various times in the school day. The model will target teachers' various needs in the local community and strengthen their technology integration skills, thus improving student learning.

## Importance of the Project to the Larger Context

The MASLEPT model project is vital to the broader educational sector as the model can enhance the way districts deliver professional development training to educators. In addition to professional development online and during the summer, the

MASLEPT model can be embedded in the school day to provide guidance, modeling with immediate feedback, lesson study, and reflection to promote change in practice. The MASLEPT model project applies to all professional development endeavors. Ndongfack (year) suggests this model is ideal for any topic or subject area of professional development training related to technology integration. Numerous districts across the United States have invested in technology to improve instructional practices in the content areas. The MASLEPT model provides components that can be duplicated and applied to other districts throughout the country. Another benefit of the MASLEPT model project is that the model includes training for teachers on the TPACK framework needed for successful technology integration in any content area instruction, thus making the model applicable to districts in the broader educational sector. Finally, the MASLEPT model offers the benefit of training in differentiating instruction and delivering specific skills and strategies to enhance teacher instruction.

Successful technology integration requires investing in teachers' professional growth and technology skills. Incorporating the MASLEPT model emphasizes improved instructional outcomes through individualized learning, TPACK instruction, lesson study, modeling, and reflective thought (Ndongfack, 2015). The MASLEPT model is grounded in a community of practice that allows for embedded learning in the instructional setting (Ndongfack, 2015). The MASLEPT model can also change the current technology-based professional development practices common throughout many districts in the United States. This model reflects the types of innovations that are necessary for meaningful and substantive school reform.

In Section 3, I presented a summary and interpretation of the findings. I described the rationale based on the research purpose, research questions, and the project's goals. Section 3 also includes a description of the project derived from the research findings and the implementation and evaluation plan. This section's conclusion presented a discussion of the project's impact on social change on local and national levels.

# Section 4: Reflections and Conclusions

## Introduction

In the concluding section of my project study, I covered an overview of the strengths and limitations of the MASLEPT model. The project was derived from the research findings that addressed teachers' perspectives regarding beliefs and ideas that impact their technology integration practices in social studies instruction. I also covered in this section alternative ways of addressing the research problem that was based on my research study. A reflection of scholarship, project development, and leadership in my perspective of the doctoral journey will follow. I will examine myself as a scholar, project developer, and practitioner in this section. In section 4 I conclude with an analysis of the project's potential impact on social change and its implications, applications, and directions for future research.

## Project Strengths and Limitations

I chose the MASLEPT model based on my findings of the research study and current literature which I felt would make the model a strength for the district. The methods I used for data collection and the resulting themes from interviews and document reviews reflected similar needs for effecting change in the district. I felt that the MASLEPT model offers self-paced learning which considers varying stages of readiness in technology integration as opposed to general training for all. The model also offers personalized lesson study and the opportunity to engage in the practice, modeling with feedback and reflection.

I have always been an advocate for professional development that provides continuous improvement of teacher instruction. Another significant strength of the MASLEPT model is the model provides the opportunity for engagement in practice in the school context. This is something that I never experienced as a social studies teacher. Teachers can witness proper modeling of technology integration, apply what is learned, and collaborate with colleagues. Providing embedded training that is relevant and beneficial to the needs of teachers is also a strength of the model.

### Project Limitations

One limitation of this project is the projected time that is needed to implement the MASLEPT model. The model is job-embedded, which requires changes in teachers' daily schedules and coverage for teachers to observe practice during the school day. To implement the model, before and after school time will be needed for lesson study, feedback, and reflection, which may require additional teacher compensation. There is a possibility the MASLEPT project may interfere with prioritized district initiatives, but I hope that the plan may be incorporated over time, and with time, teachers and administrators could adjust to changes.

## Recommendations for Alternative Approaches

The technology based MASLEPT model is designed to be embedded in the school day, which would require schedule changes if implemented. With that being said, alternatives to using this model may include implementing the model partially but gradually over time. Lesson study, which involves TPACK training and technology skills, could be done before and after school, or workshops could be held over the

summer to prepare teachers for implementing the model. Other alternatives may include online training during grade level or subject area meetings. Observations, mentoring, and reflection can be completed alternately during teacher prep periods. Days may also be set aside once a month for teachers to engage in collegial observations in surrounding schools or districts. These alternatives would replace the schedule changes needed to allow for lesson study, observations, and reflection that would ordinarily take place daily during the school day.

## Scholarship, Project Development and Evaluation, and Leadership and Change

### Scholarship

Throughout my doctoral studies, I have reflected on how I see myself as a scholar to grow and learn. I realized that I needed to improve my skills in academic writing and analysis techniques. I developed my academic writing skills and analysis techniques using doctoral tools, a writing course, and Walden's research center. Perseverance, goal setting, time management, and constant, continuous work were tools I needed during the doctoral journey. I realized the connection between the courses I took, writing the proposal, and the study process as I moved from course work to dissertation writing.

I gained an understanding of how the proposal connected to present my study problem and purpose. Throughout the research process, I gained knowledge from peer-reviewed articles about my topic and the distinction between primary and secondary sources used to support my research context. Choosing data collection instruments appropriate for my study, creating, and following a data analysis plan to analyze data, and presenting the findings in a scholarly manner were significant learning experiences.

Although the writing process involved many hours of drafting, revising, and editing, I learned to accept feedback to improve my doctoral writing continually. The experience of conducting a research study has allowed me to contribute to the field of education. As a scholar, practitioner, and leader, I will continue to conduct research to improve and enhance teacher and student learning.

**Project Development**

Recognizing the many initiatives, the school district has in place to support technology use in instruction and the district's investment in improving teacher and student achievement led me as a researcher to choose a model that supports a community of practice. I chose the MASLEPT model based on data analysis results and district teachers' need to improve technology use and improve technology integration in social studies instruction and learning. I also chose this model to offer teachers opportunities to engage in meaningful collaborative experiences that may provide embedded learning during the school day and enhance student learning.

The results of the study suggested that in social studies, embedded components of the chosen model may be beneficial to teachers in teaching 21st-century skills needed to further students' education and life endeavors. The project addresses the research problem in terms of focusing on communication among teachers through professional development, and teachers' degrees of knowledge of technology and its use in social studies instruction and requisite district support. The MASLEPT model is a logical solution to addressing teachers' perceived barriers to technology integration in social studies instruction. If the MASLEPT model is implemented, teachers' feedback during

the end of the year reflection and planning session will serve as an evaluation component and evidence of the model's effectiveness and impact on addressing challenges teachers face in their efforts to utilize technology to enhance student learning effectively.

As a project developer, it was imperative to plan purposeful professional development and ongoing training in the school context based on my study's data results. My tasks were to organize and present a PowerPoint presentation to discuss the MASLEPT model's processes and implementation. The initial training workshop will provide a model simulation of the model in action during the school day. As a project developer, my main goal was to address educators' professional needs based on my data analysis results and from a practical standpoint. During project development, I learned to examine concepts in diverse settings and analyze data to make recommendations that may apply to a broader spectrum. Other researchers or scholars may review and create further inquiry and investigation to further my research to add to the field's body of knowledge.

**Leadership and Change**

Jones and Harvey (2017) asserted leadership is built on collaboration, which results in a change. To affect change, leadership engages groups or organizations to pursue common goals that improve organizations (Jones & Harvey, 2017). Educational leaders and practitioners have the challenge to respond to trends in education. Technology plays a vital role in the change in schools and classrooms. Future leaders are expected to acquire technical knowledge and skill to differentiate learning for diverse populations of students. A concerted effort to transform instructional strategies that

involve integrating technology will result in the district and local administrators providing personalized learning based on teachers' needs within the organization. The MASLEPT model may enact change in how teachers use technology in instruction with district leaders' support. As an educational practitioner and leader, I learned that positive change is needed to improve instruction, thus improving student learning.

## Reflections on the Importance of the Work

As I reflect on the knowledge gained throughout my research study, I have a greater understanding of the importance of technology use in the content areas and technology's significance as a tool to aid in differentiating instruction. My study explored the integration of technology in social studies instruction. The purpose of this qualitative exploratory case study was to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology in terms of the potential for properly integrating technology in studies instruction. This study is relevant to practitioners and leaders to effectively address the technology skills and knowledge needed to teach diverse student populations. The study's importance sheds light on what skills and experiences are needed to improve teachers' pedagogical practices with technology in social studies instruction, enhancing student achievement in 21st-century skills. Just as differentiated learning is needed to address diverse students' various needs, it is crucial to target teachers' knowledge about technology integration, content, and pedagogy. This study also notes the importance of using a model embedded in the school context as a daily practice for teachers to reinforce technology integration skills. The Master of Active and Shared Learning Processes for Techno-Pedagogy (MASLEPT)

model (Ndongfack, 2015) for teacher professional development supports collaborative learning, problem-solving, and classroom involvement follow-up. The model facilitates teacher learning through various channels-lesson studies involving technology and TPACK skill, modeling of best practice in technology integration, and reflection of practice. This study also reflects the importance of professional development practice from remote training sessions to schools embedded in regular training and practice.

## Implications, Applications, Directions for Future Research, and Positive Social Change

The Florida district that was the focus of this study provided adequate technology and a sound infrastructure that supports technology integration in some of the content areas; however, teachers have a critical role in the effective use of technology to produce academic gains. The use of the technology based MASLEPT model reaffirms the importance of the work needed to support teachers' technology integration efforts. If the district adopts the MASLEPT model to enhance professional development training, scheduling and practice changes are essential to improvement and success. According to Kennedy (2016), to enact positive social change for school or district-wide improvement, teachers should be allowed to become involved in daily improvement experiences that include collaboration and reflection of practice. District leaders, administrators, and teachers must embrace different learning modes to accomplish quality improved instruction. Kennedy (2016) asserts that educators' positive social change may be embraced when technology's usefulness is validated by applying an authentic professional development plan that improves teachers' competencies and reflective

practice. The MASLEPT model emphasizes a process to achieve positive social change in a collaborative, context. The school setting is where teachers can explore ideas and model best practices with feedback and reflective thought. Positive social change will emerge by modifying the traditional professional development structure to include the MASLEPT model's components. There is a potential for social change in how teachers implement technology and pedagogy to improve student knowledge of 21st-century skills.

## Conclusion

Successful technology integration requires investing in teachers' professional growth and technology skills. Addressing teachers' needs will improve pedagogy and ensure teachers meet the challenge of preparing students with 21st-century skills required for today's world. Incorporating the MASLEPT model emphasizes improved instructional outcomes through individualized learning, TPACK instruction, lesson study, modeling, and reflective thought (Ndongfack, 2015). The MASLEPT model is grounded in a community of practice that allows for embedded learning in the instructional setting (Ndongfack, 2015). The MASLEPT model can also change the current technology-based professional development practices common throughout districts in the United States. Ongoing improvement through continuous learning of teachers and students is the goal of educational organizations today.

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# Appendix A: Professional Development Project

## Introduction

The research findings were derived from semi-structured interviews with teachers and district-approved document reviews which guided this project's direction. Fourth through sixth grade elementary/ middle school teachers with 3-5 years of experience presently teaching civics/social studies in their classrooms shared their perspectives on knowledge of technology, communications concerning technology integration, and stakeholders' support in integrating technology in social studies instruction. A review of the findings reflected that the district would benefit from enhanced avenues of communication, support, and sustained professional learning and mentoring of teachers related to technology integration in content areas, specifically, social studies instruction. A literature review of current research detailing effective professional development components and the advantages of using the model chosen will further support this project's premise.

## Purpose

The purpose of the project is to provide an alternative school-based professional learning opportunity for teachers of the district to enhance and sustain their endeavors in instruction with technology and improve collaboration and support of the district in integrating technology in instruction. This project was designed to address the way teachers approach instruction using technology and the knowledge, communications, and

support involved in their endeavors in technology use. Teaching and learning may be enhanced by the following:

- Improving school and district leader's communication and planning with teachers about technology integration
- Identifying teacher need in terms of knowledge about technology
- Establishing ongoing professional learning in the context of the schools
- An improved system of keeping teachers informed about district support related to technology integration in the content areas
- Establishing school mentoring programs for teachers in need of technology-related resources and skills.

The project will serve as an approach to help the district further refining its technology integration plan to improve the integration of technology in classrooms for student improvement in social studies and other content areas.

## Goals and Objectives

The overall goal of 3-day professional development training is to enhance the district's professional learning community by increasing knowledge and improving professional practice to increase student learning. The objectives are:

- To prepare teachers to engage in the use of the MASLEPT model for school-based professional development.
- To augment district professional development by offering ongoing, embedded training in technology in social studies instruction in the school context.

- To help the district rethink how teacher instruction and learning with technology might be improved through school-based training.

**Targeted Audience**

The initial institute has been developed for middle school and elementary school social studies/civics teachers in grades 4th through sixth, administrators, facilitators, and community stakeholders involved in daily school reforms. Other stakeholders and staff that are an essential part of this process, such as coaches, interventionists, and paraprofessionals who collaborate with teachers, should be involved. These stakeholders should be included in the training because they collaborate with the schools daily and provide ideas for district improvement and student learning (Visone, 2019). Participation in professional development training should enrich knowledge and skill, increase communication and collaboration, and offer greater support from the district in integrating technology in instruction and learning.

**Project Design and Timeline**

The project design is based on the Mastery of Active and Shared Learning for Techno-Pedagogy (MASLEPT). Ndongfack (2015) defined the MASLEPT model as a school-based professional development model derived from research-based best practices in teacher training on technology integration in instructional processes. The institute will be composed of presentations and modeling of MASLEPT school-based daily practices that include lesson study involving the TPACK framework, modeling and observations, reflections, and evaluation. The MASLEPT model derives from social constructivism,

which involves active learning strategies and draws from a community of practice. The timetable for the professional development training is as follows:

**Professional Development Agenda**

| **Agenda Day 1** | |
|---|---|
| **8:00-8:30** | **Registration/Continental Breakfast** |
| **8:30-9:00** | **General Session: Introduction and Greetings done by Professional Development Facilitators** |
| **9:30-10:45**<br><br>**10:45-11:30**<br><br>**11:30-12:15** | **Breakout Session I (Teacher Group (8-10)- Rotations) Professional Development Facilitators present:**<br>❖ **Knowing what You Know About Technology**<br>❖ **TPACK Experience Step by Step**<br>❖ **Lesson Study** |
| **12:15-1:15** | **Lunch** |
| **1:15-2:00**<br>**2:00-2:45**<br>**2:45-3:30** | **Breakout Session II (Teacher Group (8-10)-Rotations) Professional Development Facilitators present:**<br>❖ **Collaboration and Planning**<br>❖ **Daily Reflections**<br>❖ **Putting It All Together** |
| **3:30-4:00** | **General Session conducted by Professional Development Facilitators**<br><br>**Wrap up-Teacher Groups will share what was learned.** |

| **Agenda Day 2-Engagement** | |
|---|---|
| | |

| | |
|---|---|
| **8:00-8:30** | **Registration/Sign-in/ Continental Breakfast** |
| **8:30-9:00** | **General Session: Greetings, Professional Development Facilitators Introduce Classroom Scenarios-Modeling MASLEPT** |
| **9:30-10:45**<br><br>**10:45-11:30**<br><br>**11:30-12:15** | **Breakout Session III (Teacher Group (8-10)- Rotations) Professional Development Facilitators will conduct:**<br>❖ **Modeling Lesson Study Meetings**<br>❖ **Modeling Technology Integration and Classroom Observations**<br>❖ **Modeling Collaboration and Planning After Observations** |
| **12:15-1:15** | **Lunch** |
| **1:15-2:00**<br>**2:00-2:45**<br>**2:45-3:30** | **Breakout Session IV (Teacher Group (8-10)-Rotation) conducted by Professional Development Facilitators**<br><br>❖ **Modeling Reflections**<br><br>❖ **Teachers Engage in Modeling (Group Activities)** |
| **3:30-4:00** | **General Session: Wrap up Debriefing/Reflections by Professional Development Facilitators** |

| **Agenda Day 3** | |
|---|---|
| **8:00-8:30** | **Sign-in/Continental Breakfast** |

| | |
|---|---|
| **8:30-9:00** | **General Session: Greetings done by Professional Development Facilitators** |
| **9:30-10:45**<br><br>**10:45-11:30**<br><br>**11:30-12:15** | **Breakout Session V (Teacher Group (8-10)- Rotations) Professional Development Facilitators will conduct:**<br>❖ **Technology and You**<br>❖ **Working as a Team**<br>❖ **Modeling and Scheduling** |
| **12:15-1:15** | **Lunch** |
| **1:15-2:00**<br><br>**2:00-2:45**<br><br>**2:45-3:30** | **Breakout Session VI (Teacher Group (8-10)- Rotations) Professional Development Facilitators present:**<br>❖ **Timing and Consistency**<br>❖ **Making Lesson Study Valuable**<br>❖ **Learning from Reflections** |
| **3:30-4:00** | **General Session:**<br>**Wrap up-**<br>**Debriefing/Reflections- Putting It All Together done by Professional Development Facilitators**<br>**Complete Evaluations** |

**Materials and Equipment**

The following materials and equipment will be needed to conduct professional development training:

- Attendance sheets
- Name tags

- PowerPoint presentation
- Daily Agendas
- Notebooks with handouts
- Laptops
- Projector or Whiteboard

## Implementation Timetable

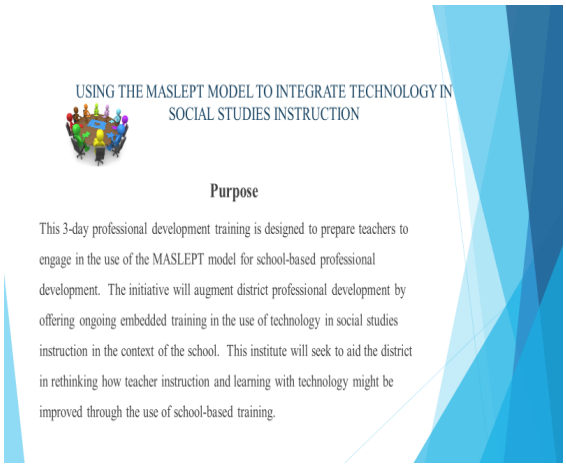
| | |
|---|---|
| **September** | Social studies teachers will Set Professional Learning Goals Based on the Florida State Standards |
| **October:** | Working session: Integrating Technology Using TPACK-Teachers will meet to address technological pedagogical and content knowledge skills. Teachers will discuss what areas of TPACK should be addressed in the lesson study. |
| **November:** | Social studies teachers will engage in lesson planning and collaboration of technology-infused lessons with (District Social Studies supervisor) |
| **December**: | Social studies teachers will do Lesson Planning/ Rubrics to Assess Technology Integration instruction |
| **January:** | Social studies teachers will model/ observe technology-infused lessons in the classrooms based on planning times, Evaluations and reflections by school social studies curriculum team, reflective coach, teacher leads, and teachers |
| **February**: | Social studies teacher will model/ observe technology-infused lessons in the classrooms based on planning times, Evaluations and reflections by school social studies curriculum team, reflective coach, teacher leads, and teachers |
| **March:** | Social studies teacher will model/ observe technology-infused lessons in the classrooms based on planning times, Evaluations and reflections by school social studies curriculum team, reflective coach, teacher leads, and teachers |
| **April:** | Social studies teachers will model/ observe technology-infused lessons in the classrooms based on planning times, Evaluations and reflections by school social studies curriculum team, reflective coach, teacher leads, and teachers |
| **May:** | Social studies teacher will model/ observe technology-infused lessons in the classrooms based on planning times, Evaluations and reflections by school |

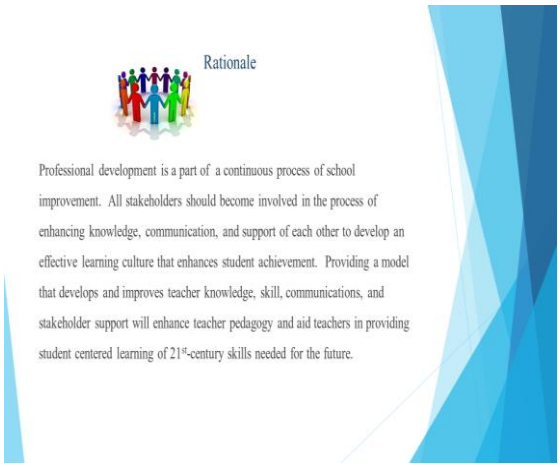
| | |
|---|---|
| | social studies curriculum team, reflective coach, teacher leads, and teachers. Prepare a report for district social studies supervisor. |
| **June:** | Meeting to evaluate/ reflect/ revise program for the new year (District Social Studies supervisor and school teams. |

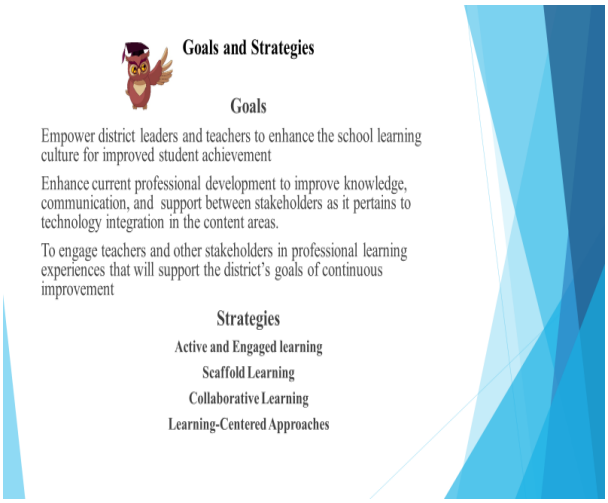
Professional Development Presentation

Day 1 Presentation-Morning Session (Slides 1-5 Whole Group)

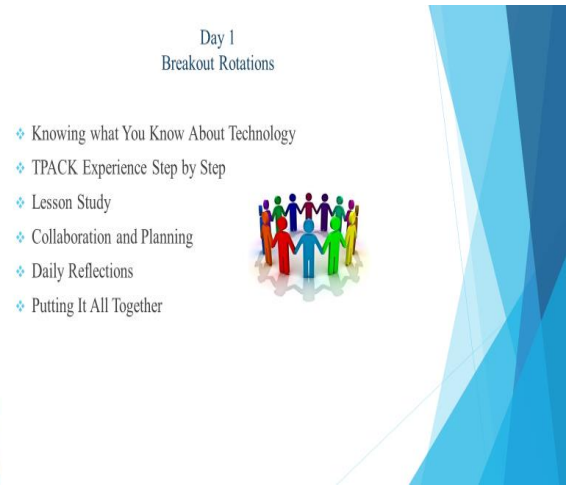
(Introduction of MASLEPT Model, Components of the MASLEPT Model, Purpose, Rationale, Goals and Strategies)

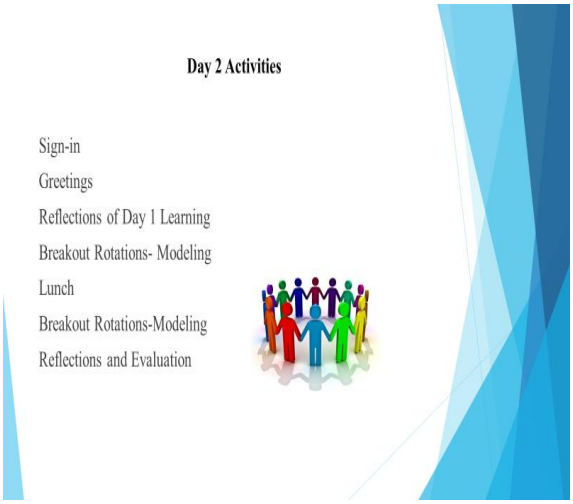




Day 1 (Agenda and Break Out Rotations


Day 2 Agenda and Breakout Rotations





Day 3 Agenda and Breakout Rotations

**Day 3 Activities**

Sign-in
Greetings
Reflections of Learning Days 1-2
Breakout Rotations
Lunch
Breakout Rotations
Reflection and Evaluation

Day 3
Breakout Rotations

- Technology and You
- Working as a Team
- Modeling and Scheduling
- Timing and Consistency
- Making Lesson Study Valuable
- Learning From Reflections
- Putting It All Together
- Complete Evaluations

# Appendix B: District Approval to Conduct Research

DUVAL COUNTY
PUBLIC SCHOOLS

**Corey L. Wright**
Assistant Superintendent
Accountability & Assessment

4037 Boulevard Center Drive | 2nd Floor | Jacksonville, FL 32207
904.390.2976 | Fax 904.390.2555
www.duvalschools.org

February 20, 2020

Karen D. Caldwell
3603 Paleface Place
Jacksonville, FL 32210

Dear Karen D. Caldwell:

Your request to conduct research in Duval County Public Schools (DCPS) has been approved. This approval applies to your project *Teacher's Perspectives on Integrating Technology in Social Studies Instruction* in the form and content as supplied to this office for review. Any variations or modifications to the approved protocol must be cleared with this office prior to implementing such changes.

Participation in studies of this nature is voluntary on the part of principals, teachers, staff, and students. Our approval does not obligate any principal, teacher, staff member, or student to participate in your study. **A signed copy of the full approval letter must accompany any initial contact with principals, teachers, parents, and students.**

This approval for research runs through April 17th of 2020. If your research will extend beyond that date, you will have to submit a request for an extension at the appropriate time. You will be required to identify any changes to the original protocol at that time and to supply any revised documents you plan to use, as well as an updated IRB. If there have been no changes to the approved protocol you may refer to the previously submitted paperwork.

As a DCPS employee, you have already undergone the fingerprinting process and background check. As a reminder, you are to wear your issued badge at all times on DCPS property.

Upon completion of the study, a copy of the finished report must be mailed to the Office of Accountability and Assessment, c/o Jason Bloom, 4037 Boulevard Center Drive, 2nd Floor, Jacksonville, Florida 32207 as well as emailed to bloomj@duvalschools.org. If your study requires an extension, an interim report that gives a status update of current findings from your research must be submitted prior to extension approval. To continue a study, these findings must inform best practices in Duval County Public Schools. Specific approval from this department must be sought and granted, in advance, of the publication of any reports/articles in which Duval County or any of its schools are mentioned by name.

If you have questions or concerns, please don't hesitate to call me at 904-390-2976.

Sincerely,

Corey L. Wright
Asst. Supt. of Accountability and Assessment
Duval County Public Schools

## Appendix C: Consent Form

### CONSENT FORM

You are invited to take part in a research study about the integration of technology in social studies instruction. The researcher is inviting 4th to 6th-grade teachers who are certified to teach social studies/ civics and have at least 3 years of experience to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Karen D. Caldwell, who is a doctoral student at Walden University. You might already know the researcher as a colleague or fellow teacher, but this study is separate from that role.

**Background Information:**

The purpose of this qualitative exploratory case study is to explore the perspectives of teachers in an urban elementary school district on the use of instructional technology in terms of the potential for properly integrating technology in studies instruction. The purpose of exploring teachers' experiences related to technology integration is to uncover the challenges teachers may face that may be barriers to integrating technology into social studies instruction.

**Procedures:**

If you agree to be in this study, you will be asked to:

- Complete an interview with the researcher by zoom or by phone which will consist of one 30 to 45-minute session. Data from semi-structured interviews will be recorded for accuracy.

Here are sample interview questions:

- How familiar are you with using laptop computers?
- How useful is technology in your instruction of social studies?
- What is your vision of how technology should be integrated into social studies instruction?
- Explain your perspective of the use of technology in social studies instruction.

**Voluntary Nature of the Study:**

This study is voluntary. You are free to accept or turn down the invitation. No one at your designated school will treat you differently if you decide not to be in the study. If you decide to be in the study now, you can still change your mind later. You may stop at any time.

**Risks and Benefits of Being in the Study:**

The risks involved in this study are minimal.

The study's potential benefits include:

- The study will provide increased awareness and understanding of teacher's knowledge, and perceptions about integrating technology into social studies and its effect on instructional practice.

- The study will shed light on the importance of communication and collaboration of educators to improve technology integration in social studies teaching and learning.
- The study will shed light on the importance of the support of stakeholders for teachers' endeavors to integrate technology in social studies teaching and learning.

**Payment:**

The researcher will give $20.00 thank you gift cards to those taking part in the study.

**Privacy:**

Reports from this study will not share the identities of individual participants. Details that might identify participants, such as the location of the study, also will not be shared. The researcher will not use your personal information for any purpose outside of this research project. Data will be kept secure in the following ways:

- password protection
- data encryption
- use of codes in place of names
- storing names (when necessary) separately from the data
- discarding names (when possible)
- Data will be kept for at least 5 years, as required by the university.

**Participants may save or print a copy of the consent form for their record.**

**Contacts and Questions:**

You may ask any questions you have now or if you have questions later, you may contact the researcher via (219) 808-8395 or caldwell.karen@waldenu.edu. If you want to talk privately about your rights as a participant, you can call the Research Participant Advocate at my university at 612-312-1210. Walden University's approval number for this study is **02-10-20-0552427, February 9th, 2021.**

**Obtaining Your Consent**

If you feel you understand the study well enough to decide, please indicate your consent by replying to this email with the words 'I Consent.'

## Appendix D: Teacher Interview Protocol

Introduction: My name is Karen Caldwell, and I am a student and researcher from Walden University. My research study involves exploring teacher's perspectives on integrating technology in social studies instruction.

To maintain your responses' accuracy, I will record our conversation during the interview. During this interview, the information will be kept confidential and transcribed, and returned to check for accuracy. A password-locked Microsoft Word file will secure interview transcripts. Recordings will be erased after the transcription has been checked for accuracy. The interview will last between 40-45 minutes. I will ask questions about your perspectives and technology use in social studies instruction during the time. The following questions will be asked:

Knowledge of the Innovation

1. What value or importance do you place on technological pedagogical content knowledge?
2. How do you describe your knowledge and use of technology?
3. Describe your strengths and weaknesses in using technology in social studies instruction.
4. Explain your vision for technology use in social studies instruction.
5. How do you use technology to differentiate instruction in social studies?

Communication Channels

1. How often do subject-area teachers meet?

2. Describe your discussions with other social studies teachers concerning technology integration and social studies.
3. Describe your collaboration and planning with colleagues that pertain to technology and social studies instruction.
4. How often do you enlist other teachers' help in social studies instruction?

Social System

1. Describe the district support offered to aid you in integrating technology in social studies instruction.
2. Describe the types of professional development targeted towards technology integration in instruction.
3. What groups are available in the district that provides joint problem solving related to technology integration in instruction.
4. Describe the job of the technology team in your building.

After the interview, participants will be reminded again of the study's confidentiality and that all documents are secured until further notice.

## Appendix E: Document: DCPS Technology Plan

DCPS Technology Plan Link:

https://duvalschoolsorg.sharepoint.com/:b:/r/sites/intech/Technology%20Resource%20Documents/DCPS%20Technology%20Plan_DCSB.pdf?csf=1&web=1&e=Ok7Xo

## Appendix F: Documents: 4th-6th Grade Social Studies Curriculum

Link: https://duvalschoolsorg.sharepoint.com/sites/cg/_layouts/15/Doc.aspx?sourcedoc={7d403744-8bcc-4e09-93ad-7638053fbc4c} & action=view&wd=target%

## Appendix G: Interview Analysis Codes

Lack of Resources-LOR green

Knowledge/Lack of Knowledge-K/LOK -turquoise

Time-Lack of Allotted Time-LOT/LOAT-yellow

Learning Technology Through Exploration-LTE-lavender

Importance of Social Studies/Technology-IOS-red

Frequency of Use/Frequency-FOU/WTU-gray

Uses of Technology-UOT- blue

# Appendix H: Document Analysis

## Curriculum Guides

## Grades 4-5th Language Arts Curriculum Guide- (Social Studies lessons integrated in language arts reading/writing lessons)

## Grade 6 Civics Curriculum Guide/ Lesson Plan

| Grade | Standards-Integrate Technology (SIT) (NSIT) | Lessons Integrate Technology (LIT)/(NLIT) | Lesson Activities/ Assessments in Guide/lesson plan) | Differentiation Methods (DM) Differentiation Technology (DWT)/(NDWT) | Technology Activities (TU/SU) (Support) | Technology Integration Activities (TIA) Not In Use (NIU) |
|---|---|---|---|---|---|---|
| **4th** | **ISTE** | **(NLIT)** | Charts, Venn diagrams, tables, task cards, question-answer | (DM)Lexile levels, listening, different text, tactile activities (NDWT) | Achieve 3000 online reading/ writing (SU) Whiteboards, Doc cameras suggested (TU) | Not in Plan/Guide (NIU) Research Projects Proposals Creations |
| **5th** | | **(NLIT)** | Charts, Venn diagrams, tables, task cards, question-answer | (DM) Lexile levels listening, different text, tactile activities (NDWT) | Achieve 3000 online reading/ writing (SU) Whiteboards, Doc cameras suggested (TU) | Not in Plan/Guide (NIU) Research Projects Proposals Creations |
| **6th** | | **(LIT) Student Research offered** | Charts, Venn diagrams, tables, cartoons, question-answer | (DM) listening, different text, tactile activities (NDWT) | Interactive Games provided for each lesson (SU) Other tech resources (TU) CPALMS-Interactive Tutorials (SU) | Research (SU) ((NIU) Projects Proposals Creations |

## Technology Support

The district offers online support in terms of interactive tutorials and games to reinforce instruction for middle school students.

Achieve 3000 online activities are a part of the social studies component for 4th-5th grade students.

**Curriculum Guide and Resources-4th and 5th Grades**

The following curriculum guide items were reviewed to gain information on technology integration in social studies instruction:

- Related Standards
- Overview of Guides
- Lesson Plans
- Instructional Resources
- Lesson notes and Best Practices
- Language Arts Teacher's Guide (4th-5th)
- 2020-2021 Teacher's Manual (4th-5th)
- Student Reading and Writing Notebook (Social Studies Infused)
- District Reads related to Social Studies
- Social Studies Workbook

Social studies curriculum guide and lessons correlate with the Florida Department of Education standards (Snyder et al., 2019). Social Studies lessons are integrated into the language arts/reading program and curriculum on the elementary 4th-5th grade levels. Technology application is included in some instances for teacher use. Student use involves the use of Achieve 3000 which provides social studies-related articles and

writing activities. A social studies workbook is used as a skill reinforcement for lessons but does not incorporate technology. Curriculum guides and lesson plans do not offer activities to promote technology integration such as creating ideas, research, writing proposals, or the creation of projects related to social studies content. There are online interactive lessons for reading skills provided in the language arts toolbox however, the lessons are not social studies related. There is suggested use of technology for teachers (interactive whiteboards and document cameras) for teaching lessons and teachers have access online to interactive lessons and tutorials. Technology-related standards are not available in the language arts curriculum for the 4th and 5th grades. Evidence of activities or assessment materials includes question-answer written assessments, completing charts, tables, Venn diagrams, and using task cards. There was no evidence of technology integration skills in social studies lessons.

**Middle School Civics-Curriculum Guide (6th Grade)**

The following curriculum guide items were reviewed to gain information on technology integration in social studies instruction:

- Related Standards
- Overview of Guides
- Lesson Plans
- Instructional Resources
- Lesson notes and Best Practices
- Civics Resources and Workbook

The curriculum guide and civics lessons for 6th-grade correlate with the FLDOE standards. Online interactive games about civics content such as the Branches of Power game reinforce the content taught. Interactive tutorials are also available such as Creating a Bill or foldable on Powers and Functions of the Legislative Branch. There are no activities or suggestions provided in the lessons or guide to promoting technology integration for students where students can engage in creating their own knowledge, exploring ideas, creating projects, independent research, or authoring research proposals. Resources provided include workbooks, online games, and tutorials. Differentiated instruction involves the use of different Lexile levels, listening activities, different text levels, and levels of interactive assignments online. Other activities for various levels of learning include vocabulary matches, reading and answering related questions, activities to use higher-order thinking skills, use of Venn diagrams, charts, creating cartoons, and storyboards. One lesson plan reviewed involved students engaging in research to complete a timeline of historical events however the research assignment was preplanned with designated sites and search engines for student use allowing for no independent exploration or personal creation of a project. The teachers' lesson plan is available online with all related resources. There was no other evidence of suggestions for teachers to facilitate technology integration activities for social studies instruction.

## District Technology Plan (2018-2019) Analysis

I analyzed the district technology plan to find evidence of the communications, support, and professional development training offered to teachers to aid in their

endeavors to integrate technology in social studies instruction. The following items were reviewed from the technology plan:

- Mission and Vision
- Background Information
- Needs Assessment for Teachers
- Goals and Strategies
- User Support Plan
- Professional Development Plan
- Monitoring and Evaluation
- ISTE Standards for Teachers

The mission of the district technology plan is

- To provide adequate infrastructure, technology, and resources to all schools
- Work with Curriculum and Instruction to provide the necessary support for teachers to facilitate the integration of technology in education
- Adoption of the ISTE Technology Standards to promote learning of 21st-century skills ((DCPS Technology Plan, 18-19)

The District Technology Plan (2018-2019) vision is to prepare every student for success in college, career, and life. This vision will enable the district to more effectively

- Align standards, curriculum, instruction, assessment, and professional development
- Assess student learning
- Differentiate instruction for individual needs

- Integrate technology in learning
- Increase communication across the district
- Create more efficient methods of collaboration (DCPS Technology Plan 18-19).

The mission and vision of the district technology plan stated the goal of integrating technology in instruction and learning, improving communication and collaboration among stakeholders, providing necessary support for teachers to facilitate the integration of technology in education, and align the Florida standards and ISTE technology standards with curriculum, instruction, assessment, and professional development. According to the DCPS technology plan technology integration is the district's goal (District Technology Plan, 2018-2019).

The district technology needs are assessed through resource inventory, a project management process, and technology committee feedback (DCPS Technology Plan, 18-19).

The technology committee realizes improvements must be made in collaboration with curriculum and instruction to ensure the integration of technology is a meaningful component of all curriculum training and monthly coaches' meetings.

**Technology Plan Goals**

**Short Term Goals**

- Continue implementation of One View, the communication system for all stakeholders that provides school and district information and resources.
- Provide adequate resources to support the district initiatives
- Continue implementation of the ISTE technology standards

- Provide professional development opportunities for effective use of programs and student performance monitoring systems
- Provide ongoing technical support for equipment
- Expand on-site technicians (DCPS Technology Plan 18-19)

Other goals pertain to the management systems of the infrastructure.

**Long-Term Goal**

One long-term goal was stated pertaining to technology integration in instruction.

- Develop, implement, and maintain ongoing professional development training opportunities (DCPS Technology Plan, (2018-2019).

The goals of the technology plan are related primarily to supporting and maintaining the infrastructure, technical equipment, and management systems. Professional development goals pertain to effective use of programs, professional development levels of technical knowledge, and student performance monitoring systems and (DCPS Technology Plan, 18-19).

**Strategies**

Strategies to increase technology skills and integrate technology in the classroom include:

- Develop and acquire innovative programs and software
- Research innovative software and hardware for academic growth
- Integrate technology as a meaningful component of all curriculum training
- Identify and acquire technology-based professional development delivery systems that maximize teacher time and increase instructional effectiveness

- Develop a system of evaluation of training to determine effectiveness and future needs
- Provide school technology training to support the use of technology equipment and system programs
- Provide training for grant and initiative funding
- Provide technical guidance to school and district personnel

According to the district technology plan (2018-2019), Regional Information Officers (RIO) are assigned to schools to provide support in technical issues, and support is also offered via the help desk in which teachers can email or call with questions concerning computers and other technology. Principals and School Technology Contacts (STCs) are provided regional support through weekly briefings highlighting services, professional development training, and new initiatives. The support mentioned here pertains to the technical support of systems and programs.

**Professional Development Plan**

The professional development plan addresses the various levels of knowledge and skill of teachers by an initial survey (Technology Use Perception Survey) which places each participant in tiered training in the Digital Classroom Plan. Each tier addresses three objectives:

1. Objective 1: Basic technical knowledge which is training on how to use technology and basic hardware and software applications.
2. Objective 2: technology-supported pedagogy trains teachers to collaborate with experts to enhance skills in teaching with technology.

3. Objective 3: Hands-on application in which participants use knowledge and skills learned to create technology-related lessons or projects.

Levels of technology proficiency are tracked from baseline proficiency to target achievement (District Technology Plan, 2015). Professional development training is offered in multiple formats such as distance learning, online networking, and web-based instruction.

This professional development plan addresses the various levels of knowledge and skill offered on varied dates and times. The tier 1 and 2 training can be beneficial for teachers if applied in the classroom setting.

**Evaluation and Monitoring**

The district technology plan has an evaluation process that focuses on three variables: The Technology Services Division's ability to conduct the strategies and initiatives in the technology plan, the level and quality of support given to users, and the impact of technology on student achievement (DPCS Technology Plan 2018-2019). The objectives are measured by surveys for customer support, department climate surveys, the ratio of devices to students, results of surveys regarding professional development training, survey results on access to adequate software resources, percentage of schools with high-density wireless, and evaluations of IT personnel (DPCS Technology Plan 2018-2019). Sections of this plan that pertained to the knowledge, communication, and support of teachers in integrating technology in instruction were analyzed. This plan is very comprehensive with components that support to some degree the integration of technology. There are three-tiered levels of professional development training to support

teachers in knowledge, skill, and pedagogy related to technology integration provided in a digital classroom however a great deal of the plans is geared towards the infrastructure, communication programs, and digital resources which are much needed for technology use.

The purpose of this document analysis was to analyze the curriculum guides and the district technology plan to explore information related to the study problem. Findings from district-approved documents will be compared to interview responses to triangulate data on teachers' perspectives on integrating technology in social studies instruction and learning.

**ISTE Standards**

The ISTE standards were adopted by the district as a part of the goals of the technology plan. The ISTE Technology standards for teachers target teachers' behaviors and practices related to the integration of technology in instruction. The ISTE standards (2016) state teachers should exhibit the following practices and behaviors:

- Inspire and facilitate student learning and creativity, innovative thinking, and inventiveness by providing technology-enriched experiences.
- Model collaborative knowledge construction through technology use.
- Design and develop digital age learning experiences and assessments by developing technology-enriched learning environments.
- Utilize technology to personalize learning experiences for diverse learners.
- Provide a variety of summative and formative assessments aligned with content and technology to inform learning and instruction.

- Demonstrate fluency in the use of technology in collaboration with stakeholders using technology and resources to support student innovation and success.
- Model and facilitate the effective use of technology to support research and learning.
- Promote and model digital citizenship and responsibility.
- Engage in professional development to improve practice and leadership.
- Demonstrate a vision of technology infusion.
- Evaluate and reflect on current research and add to the body of knowledge in education (ISTE Standards, 2016)