2018

Elementary Teachers' Experiences Integrating Technology with Literacy Instruction

Valerie Coward-Vaughn
Walden University

Walden University

College of Education

This is to certify that the doctoral study by

Valerie Coward-Vaughn

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Ellen Scales, Committee Chairperson, Education Faculty
Dr. Kathleen Montgomery, Committee Member, Education Faculty
Dr. Karen Hunt, University Reviewer, Education Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2018

Abstract

Elementary Teachers' Experiences Integrating Technology with Literacy Instruction

by

Valerie Coward-Vaughn

MA, Touro College, 2004

BS, Queens College, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

February 2018

Abstract

Elementary educators at the urban elementary school in this study struggled with technology-enhanced literacy pedagogy to increase student success. The purpose of this case study was to examine the extent to which educators built relationships between technology and teaching to improve student success. The study was guided by Venkatesh's unified theory of acceptance which was used to examine how educators accept and use technology in literacy instruction. The research questions examined teachers' perceptions of how they can build better relationships with technology and teaching to enhance student literacy success and their perceptions of administrative and district support services to enhance instructional practices. Data collection occurred through interviews of 12 participants at the school under study chosen based on age, gender, teaching experience, and teaching credentials. Information was coded and themes were identified. A result of thematic analysis was generally that ongoing professional development is important and it should be implemented to help classroom educators strengthen those relationships between technology and teaching in the school. The findings also indicated that educators needed more professional development opportunities and time to see more in-house demonstrations of technology incorporated into teaching. A 3-day professional development project was developed that presented opportunities for teachers to collaborate, react to demonstrations, and plan lessons utilizing new ideas learned. This project and findings of the study may allow school leaders to see the benefits of participatory professional development and empower teachers to have increased relationships with technology and literacy instruction to enhance learning for students.

Elementary Teachers' Experiences Integrating Technology with Literacy Instruction

by

Valerie Coward-Vaughn

MA, Touro College, 2004

BS, Queens College, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

February 2018

Dedication

I dedicate this dissertation to my father, Daniel Russell Coward Sr., who has been gone for more than four years. When you were alive, you never let me forget that I can climb the highest mountain. Your strong, encouraging words and incredible sense of humor kept me going, and I am sad that you cannot be here to share this wonderful time with me. I always remember how you wanted me to become a nurse, but instead, I have become a Doctor of Education. Even when the ED program at Walden University seemed unbearable, I thought about how proud you would be to call me Dr. Valerie Coward-Vaughn. I just want you to know dad – I climbed that highest mountain just for you. Thank You!

I also dedicate this dissertation to my mother, June Taylor, who molded me into the independent, strong woman I am today. Without that ability, I cannot say that I would have had the courage and strength to complete such an intense program that exceeded my wildest dreams. Thank You, and I love you, mommy.

Ultimately, I would like to dedicate this paper to my five children – Vanessa, Angela, Joseph, Daryan, and Tiffany – my three grandchildren, and my supportive husband, Alfonzy Vaughn III. Without your endless support and continued patience, I would not have completed the journey at Walden University. Thank you and I love you guys.

I thank my Lord and Savior who saw me through each challenging step, never letting me lose focus. All things are possible when you walk side-by-side with the Lord. Amen!!

Acknowledgments

I would like to thank Dr. Ellen Scales, Dr. Kathleen Montgomery, and Dr. Karen Hunt for their endless support and assistance. I would also like to thank all participants at the school under study for their time and dedication.

Table of Contents

List of Tables

Section 1: The Problem

The Local Problem

Advancement in digital technology is dramatically changing the standard textbook teaching practices in school systems (Miller & Warschauer, 2014; Pittman & Gaines, 2015). School systems that consider how educators develop stronger relationships between technology and teaching to enhance student success support the unified theory of acceptance and use of technology (UTAUT) model (Venkatesh, Morris, Davis, & Davis, 2003). In 2012, Venkatesh, Thong, and Xu examined three broader organizational constructs within the UTAUT model: (a) acceptance and use of technologies, (b) alteration of some of the existing curricular–pedagogical relationships, and (c) beginnings of new instructional relationships. I used these constructs in this study.

Administrators and teachers at a public school in an urban New York state school district have suggested technology guidelines to improve classroom literacy instruction, but a curriculum has not been designed to support the integration of technology with literacy instruction (Principal, personal communication, January 7, 2016). Barrett-Tatum (2015) emphasized that literacy instruction in the elementary grades should move away from conventional practices and build stronger relationships with technology in order to provide a strong learning environment. The UTAUT theory guided this investigation of how teachers and administrators accepted and used technology in literacy classrooms in one elementary school and how they determined future instructional changes and organizational shifts to improve academic success.

Starting with the mandate of the No Child Left Behind Act of 2001 (NCLB, 2002), rewritten as Every Student Succeeds Act (ESSA, 2015), educators are expected to emphasize technology integration with literacy instruction. The New York State Education Department (NYSED), overseeing public school educational expectations and standards, now requires public schools in urban school districts to follow the recommendation of the Common Core State Standards (CCSS, National Governors Association, 2010). The CCSS suggest that all K-12 students in public schools obtain the skills necessary to master information and communication technology (Luther, 2015; Tomlinson, 2015). Educators in public schools are currently expected to use more technology in the literacy classroom to enhance student success (Bull et al., 2016; NYSED, n.d.). Furthermore, those technology-driven literacy lessons should align with the CCSS put in place by the NYSED (n.d.). Researchers found that the CCSS in U.S. public school systems placed technological demands on schools and administrators that now expect teachers to use more digital media in the literacy classroom to enhance teaching and learning (Luther, 2015; Pandya & Aukerman, 2014; Tomlinson, 2017).

The local district for the target school, however, does not mandate that all educators in urban school districts follow those standards. Technology and teaching is based on educators' acceptance and preferences when using technology in the classroom (Principal, personal communication, January 7, 2016). This approach parallels the finding of Safitry et al. (2015), who conducted research on technology integration in an elementary school. The researchers examined the relationship educators had with technology and teaching to determine how educators rated the effectiveness of the

integration of technology programs in the literacy classroom. Safitry et al. discovered that, just because educators integrated technology with classroom instructional practices, it did not necessarily mean they had strong relationships with technology and teaching. Educators may not know that a technology-driven lesson can improve teaching and enhance student success. It has been found that only 18.7% of educators had strong relationships with technology and aligned those technology-driven lessons with the school's instructional expectations. The investigation also indicated that educators had positive attitudes toward the integration of technology with literacy instruction, but had little training, support, or professional development with the process. Safitry et al.'s findings confirmed the UTAUT progression, with acceptance and use leading to facilitating conditions, which for school organizations include the professional development resources and supporting technology staff. The importance of Venkatesh et al.'s (2012) study is that, "According to UTAUT, performance expectancy, effort expectancy, and social influence are theorized to influence behavioral intention to use a technology, while behavioral intention and facilitating conditions determine technology use" (p. 159). Assessing the effectiveness of technology can be used to improve teaching and learning. It can be said that more technology integrated with academic instruction produces better student performance and growth.

During annual teacher surveys at the study school, administrators determined that educators were enthusiastic about technology, about building better relationships with technology, and about teaching to improve student success. However, teachers expressed uncertainty about how to connect literacy and technology.

> Many educators were reluctant to accept and use technology. That is why they [were] not willing to integrate technology into literacy instruction. Administrators are working with our partners to support the relationships educators have with technology in an effort to help them build stronger relationships with technology in the literacy classroom. (Principal, personal communication, January 7, 2016)

According to Tarhini, Arachchilage, and Abbasi (2015), school systems seeking to examine how individuals accept and integrate technology to enhance teaching and learning are adopting organizational concepts that align with Venkatesh et al.'s (2012) three key constructs: (a) adoption and use of technologies, (b) altering some of the existing instructional relationships, and (c) introducing new instructional relationships.

Hechter and Vermette (2013) conducted a study on the relationship educators had with technology and literacy instruction and showed that educators felt overwhelmed. Lack of knowledge, experience, organizational support, and time determined how they would use and accept technology during instruction periods (Hechter & Vermette 2013). Educators were reluctant to build stronger relationships with technology and teaching, because they felt uncomfortable with their inexperience. Hechter and Vermette's findings confirmed Howley, Wood, and Hough's (2011) study, which argued that limited instructional planning time, knowledge, experience, and poor communication among both school and district administrators were factors that determined the kind of relationship educators had with technology for improving teaching and enhancing student success.

Learning organizations in one urban school in the XYZ school district encourage classroom educators to align and integrate technology-enhanced literacy instruction into

their lesson plans (NYSED, n.d.). Educators in the target school struggled with technology-enhanced literacy pedagogy (Principal, personal communication, January 7, 2016). Even though there was no mandate, educators understood that integrating technology with literacy was necessary for learning in the 21st century (Tomlinson, 2015). The principal at the urban school under study sought greater assurance for improved student outcomes, "Before educators and students shift into using technology in class, administrators and the school curriculum team should discuss why stronger relationships with technology in the literacy classroom is needed to improve teaching and learning" (Principal personal communication, January 7, 2016).

Safitry et al. (2015) made a strong case for the way technology enhancement in public school systems has turned traditional teaching methods into a digitally-enhanced pedagogy that can be taken far beyond the classroom environment. School districts that use more technological devices in elementary schools support a 21st-century learning environment and serve a diverse community of learners with a fair and equal education regardless of gender, age, cultural background, or economic status (Curwood, 2014; Johnson, Adams Becker, Estrada & Freeman, 2014; Moore, Morales, & Carel, 2013). If educators exposed all students to technology-enhanced instruction integrated with literacy instruction beginning in the elementary grades, by the time students reach middle school, they will have attained the literacy skills and knowledge necessary to succeed (Hechter & Vermette, 2013; Safitry et al., 2015). Whereas the ESSA (2015) suggests that students learn technology for its ease and appeal, the CCSS emphasizes the importance of

going beyond ease and appeal and using technology to deepen critical thinking and learning, especially when learning to read (National Governors Association, 2010).

Administrators and educators at one school in the urban school district suggested technology guidelines to improve classroom literacy instruction, but had not designed a curriculum to support the integration of technology with literacy instruction (Principal personal communication, January 7, 2016). The discussion between administrators and educators at the urban school under study is critical in helping educators, school administrators, and district leaders determine if a technology-driven literacy curriculum and literacy instruction can improve teaching and enhance student literacy success (Johnson et al., 2014; Moore et al., 2013). The principal contemplated the role of integrated technology with literacy and sensed that "The absence of growth in reading may be due to the lack of technology…in the literacy curriculum." The principal pondered why literacy has not improved and reasoned that it was due to the limited technology-driven lesson. The principal offered a broader explanation of why literacy has not improved, "The limited support and guidance received from school and district administrators to help educators build stronger relationships with technology and teaching" and (b) "the lack of professional development provided to help educators to sustain relationships with teaching and technology" (c) the urban school demographic data reveals that ethnicity makeup is not evenly divided" (Principal, personal communication, January 7, 2016). Table 1 features select demographics for one school in the urban school district.

Table 1

Select Demographics Within an Urban School in one School District

Demographic	Percentage
Ethnicity	
Black	91
Hispanic	3
Asian	5
White	1
Female	55
Male	45
English language learners	2
Special education students	2
Average student attendance rate	96

Table 2 illustrates student literacy performance based on state administered literacy exams for the 2014-2015 school year. The data revealed that students at one school in the urban school district were doing better than other students in the same district. Over 40% of the student subgroups at one school in the district were just meeting minimum standards for literacy competency. Literacy data is from one school in the XYZ district on the literacy exam that is given to students in third through fifth grade.

Table 2

Urban School District Fifth Grade PLAP

Performance Level	School Performance	City Performance
3 or 4	78%	66%
2 or 3	29%	26%
2, 3, or 4	30%	33%
1	0%	0%

According to Table 1, for the 2014-2015 AY for one school in the urban school district, over 90% of students were African American, which reveals a low population

diversity. According to Table 2, 50% of the students were at or above grade-level expectations and over 40% of students were below or at grade-level literacy performance expectations. The information from both tables can be used to help educators in one school in the urban school district determine the student population and its performance level. These data can be helpful in measuring baseline performance levels before technology is integrated. The data can be revisited each year to measure the growth of student performance, if any, after technology is integrated into classroom instruction. In this study, I looked closely at existing relationships educators have with technology and teaching to improve teaching and learning in the literacy classroom.

Definition of the Problem

To enhance student success, educators at one school in an urban school district were struggling to address the many concerns linked with technology and teaching (Venkatesh et al., 2012). The principal at the school said, "Classroom educators were having a hard time understanding the importance of CCSS and the academic impact that technology relationships in elementary school have on literacy teaching and learning" (Principal, personal communication, January 7, 2016). While writing about the current relationships between technology and teaching in learning organizations, Braverman (2016) and Thirunarayanan, Lezcano, McKee, and Roque (2011) discussed the *digital immigrant* and the *digital native*. Many educators today were born before the widespread development and use of technology, so they are viewed as digital immigrants. Students in public school systems nationwide became familiar with computers and the Internet at an early age, so they are viewed as the digital natives (Webster, 2017). Safitry et al. (2015)

discussed the academic disadvantages that many students face when educators do not sustain stronger relationships with technology and teaching. Safitry et al. and Biancarosa and Griffiths (2012) discussed the urgent need to use more technology devices to improve teaching and learning in U.S. learning organizations. Educators face many challenges when asked to build better relationships with technology in school to enhance teaching and learning.

Rationale

This investigation has the potential to add to and enhance literacy instruction in one urban school in the XYZ school district because it provides insight into teachers' responses and perspectives about the use and acceptance with technology in the literacy classroom. As a result, the school administrators' attempts to align the school's current literacy curriculum with the technology CCSS expected in kindergarten through fifth grade. Currently, additional perspectives about the impact technology has on student success from educators and district administrators in other schools in the XYZ school district have not been considered. In addition, administrators and educators at the school under investigation have existing relationships and experiences with technology in the literacy classroom; but, most lack professional learning opportunities on how to align technology with literacy instruction.

Pittman and Gaines (2015) agreed that integrating digital reading and electronic books into the literacy classroom could yield increased student literacy overtime. Other researchers found that educators who had better relationships with technology in the classrooms fostered learning environments that enhanced teaching and increased

academic success for all students (Mazur, Brown, & Jacobsen, 2015; Venkatesh et al., 2012). The lack of exposure to technology development opportunities has been a topic of discussion among administrators and teachers at the school. Moreover,

> Administrators at the urban school in the XYZ school district are well aware of the potential value between technology and teaching to enhance student success and are working towards aligning the school's current technology plans with literacy instruction to enhance student success. (Principal, personal communication, January 7, 2016).

Biancarosa and Griffiths (2012) suggested that tools, such as e-readers and electronic books, could be used with literacy instruction to enhance classroom lessons to provide young readers with the high-level literacy skills and background knowledge that is required today. Therefore, the enhancement offered by technology integrated with literacy instruction can improve teaching and increase overall student literacy (Bull et al., 2016). There remain many avenues to explore in this content area, such as the challenges of having updated technology devices readily available, commitments, and monitoring the use and acceptance in the school.

Therefore, in this study, I investigated teacher perspectives regarding the relationship between technology and teaching to enhance student success. I investigated whether teachers believed the relationships between technology and teaching would improve student success and if those relationships needed to be further strengthened within the school. The principal of one urban school in the XYZ school district reminded educators of the link between technology and teaching which enhances literacy

instruction included in the CCSS, “Educators should plan to use and accept more technology-driven instruction when designing literacy lessons” (Principal, personal communication, January 7, 2016). Even though the principal told educators about suggested instructional shifts and expectations, the principal realized that educators at one school in the XYZ school district lacked the administrative support, both at the school and district levels, to help them acquire stronger relationships with technology and teaching.

Venkatesh et al. (2012) argued that behavioral intention is important in an organizational setting, because it is the degree at which individuals receive and accept new ideas. According to the National Governors Association (2010), conventional classroom education is unacceptable in modern society and included the kindergarten through fifth grade *Technology Skills Scope Sequence* as part of its report on the implementation of the standards. When educators are trying to build stronger relationships with technology to enhance student success, the absence of administrative supports and services may determine how they accept and use technology to improve teaching and enhance student success (Venkatesh et al., 2012).

The main contribution this study provides to the urban school under study was the perspectives of teachers’ existing use and acceptance with technology in the literacy classroom and to provide school administrators with the support, services, and recommendations needed to help sustain those technology relationships in the literacy classroom. Moreover, school administrators could profit from the study results by preparing teachers for future school reform. Most importantly, teachers would profit if

the study confirmed the need for meaningful technology professional development opportunities and proved that collaborating with administrators and would support the technology relationship. Furthermore, educators would have the sense of having a voice pertaining to their needs at the same time enhancing teacher self-efficacy and support for integrating meaningful technology in the literacy classroom. When educators are provided adequate time to openly discuss how they feel about technology and teaching, they are more likely to accept and use technology on a continuous basis and become familiar with its purpose (Venkatesh et al., 2012).

Evidence of the Problem from the Professional Literature

Today's educators and learners are expected to build some kind of relationship with technology in the learning organization to increase students' academic performance and achievement (Birch & Irvine, 2009; Pittman & Gaines, 2015). Venkatesh et al. (2012) argued that "performance expectancy, effort, and social influence are theorized to influence behavioral intention to use technology" (p. 159). Individuals are more likely to use and accept technology into instructional plans if they have stronger technology and teaching in the classroom (Altuna & Lareki, 2015; Birch & Irvine, 2009).

Educators worldwide are trying to understand how technology and teaching in the literacy classroom will make a difference in the field of education (Pandya & Aukerman, 2014). When educators accept and use technology to drive instruction, they are more likely to sustain better relationships with technology and teaching in the classroom to increase students' overall educational growth. This growth was measured by the 2015 National Assessment of Education Progress in a recently published report on state reading

outcomes in primary and secondary grades (National Center for Education Statistics, 2015).

In a recent investigation, Mazur et al. (2015) found that technology-enhanced lessons must go beyond the use of basic technology devices (e.g., overhead projectors, tape recorders, videos) to enhance learning. Technology-driven instruction must strengthen student engagement and learning during class time and at home. Biancarosa and Griffiths (2012) found that even though educators are trying to include more technology in an already voluminous education program, they are not sufficiently integrating technology with literacy as a tool to excite and engage readers. When educators develop better relationships between technology and teaching, they understand how integrating technology with literacy instruction is essential if school systems intend to encourage higher levels of literacy performance and success, both in school and at home (Brunsell & Horejsi, 2013). Mazur et al. (2015) suggested that it was necessary to incorporate three main inquiry-based designs to improve teaching and learning: monitored collaborative discussions between school educators and administrators, updated classroom desktop whiteboards, and technical assistance for educators to integrate technology-enhanced programs with classroom instructional practice. The purpose of this case study was to examine the extent to which educators build stronger relationships between technology and teaching to improve student success (Venkatesh et al., 2012).

Definition of Terms

High-quality literacy instruction: Instruction provided by teachers who received professional development on literacy, students' examinations, and student teaching. Schools that deny educators an opportunity to build on existing awareness and experience affect the quality of education in U.S. schools (Cohen & Bhatt, 2012).

Support and tools: Resources, materials, and ongoing staff development used to provide training, knowledge, and understanding about new organizational plans and programs. Poor communication among staff and limited knowledge of how to align and integrate new technology programs with academic instruction are problems that hamper technology integration in school systems (Howley et al., 2011).

Educators' attitudes and literacy challenges: The process by which educators express personal views and opinions. Educators face many challenges when asked to integrate technology programs with classroom instruction. Many educators express concern about the support and training received during the process. Only 18.7% of educators include and integrate technology programs with classroom instructional practices (Safitry et al., 2012). Students are academically disadvantaged due to the traditional methods of teaching literacy in the classroom, such as chalk, talk, teacher dominated, and coral reading (Murnane, Sawhill, & Snow, 2012).

Technology evaluation: Assessing the effectiveness of technology used to improve teaching and learning. More technology integrated with academic instruction produces better student performance and growth. There is a need for a concerted evaluation program to determine if the link between educational measure and technology inclusion

in the classroom improves learning and teaching (Sarkar, Mohapatra, & Sundarakrishnan. 2017).

Technology integration: Integrating technology with educational plans and programs, aligning and integrating technology with academic instruction to improve teaching and learning for all stakeholders. Technology integrated with classroom instruction produces high levels of academic success (Miranda & Russell, 2012).

Significance of the Study

This case study is significant because in the field of literacy studies, the voices of educators responsible for building relationships between technology and teaching to improve student success and who must ensure that all learners reach grade-level standards are not documented (Neuman & Celano, 2012; Venkatesh et al., 2012). The data gathered from educators in one school in an urban school district can help improve existing relationships educators have with technology and teaching in other schools in the district. The data can be used to help educators build stronger relationships between technology and teaching in the elementary school classrooms (Miranda & Russell, 2012). School administrators at this school could use the results to determine whether a designated technical assistance *engineer* was needed in the school to help educators sustain effective relationships with technology in their teaching. District administrators could use the findings to help other schools and educators within the district build relationships between technology and teaching to improve existing teaching practices and enhance student success (Howley et al., 2011; Sarkar et al., 2017). The overall results could serve as a starting point at one urban school in the XYZ school district, as well as

help other schools in the XYZ district and, eventually, schools across the country. Most importantly, the results of this study could support the dramatic shift required today to build stronger relationships between technology and teaching in an effort to enhance academic success for all stakeholders.

Research Questions

The school district under study is one of 45 schools in the state that has adapted the CCSS, which state that students in K-5th, "Demonstrate the ability to use technology for research, critical thinking, decision making, communication and collaboration, creativity and innovation" (Long Beach Unified School District, n.d., p. 7). Applying digital resources in the classroom is no longer a preference, but a requirement. Although the target school encouraged educators to use digital resources in the classroom (I-Ready, Skoolbo, and Amazon Kindle), the district had no mandated policy which said that educators must build relationships between technology and teaching in the literacy classroom. During informal classroom visits at the target school, the school administration reported that educators who were enthusiastic to integrate technology with literacy instruction yielded higher levels of student engagement (Principal, personal communication, January 7, 2017). Administrators observed that students were motivated, self-directed, and able to manipulate literacy tasks and activities accurately.

The principal agreed that the teacher's educational goals and objectives were factors that determined the relationships educators had with technology usage and acceptance during instructional time. The principal agreed that educators required more support and services to increase motivation when building those relationships with

technology and teaching, “If educators do not have a strong relationship with technology, then they are less likely to use and accept technology in the classroom” (Principal, personal communication, January 7, 2016).

The study participants included kindergarten through fifth grade educators who already had existing relationships between technology and teaching. I investigated how educators at one school in the district used those resources to enhance student success and improve teaching. Educators discussed the relationships, behaviors, and the perceived advantages that technology integrated in the literacy classroom could have on teaching and learning. I gathered data in face-to-face interviews with educators, as well as from school and district personnel.

The following research questions were based on Venkatesh et al.’s (2012) theory of acceptance and use of technology:

RQ1: What are teachers’ perceptions of how they can build better relationships with technology and teaching to enhance student literacy success?

RQ2: What are educators’ perceptions of administrative and district supports and services that sustain instructional relationships with technology and literacy teaching to enhance educators’ instructional practices?

Conceptual Framework

This study’s research questions were aligned with Venkatesh et al.’s (2012) research to understand (a) how educators use and accept technology to improve student success, (b) how they build better relationships for teaching and learning with

technology, and (c) how they build stronger relationships with technology to enhance student success.

Researchers who looked at educators' pedagogical approaches to technology integration found that the culture of the school is a consideration in their acceptance and use of technology (Kim, Kim, Lee, Spector, & DeMeester, 2013). Kim et al. (2013) concluded that the role of administration is pivotal for the necessary collaboration and support that is the foundation of the school culture. Kim et al. determined that leadership and teacher collaboration was an area that needed further research (as did Attuquayefio & Addo, 2014). An educator's experiences, attitudes, and beliefs play a distinct role in the integration of technology; in addition, a supportive collaborative environment is a way to help with the strengthening of existing instructional reform within the school (Kim et al., 2013).

As mentioned earlier, the conceptual framework of Venkatesh et al. (2012) was used to understand how educators use and accept technology to improve student success, how they build better relationships for teaching and learning with technology, and how they build stronger relationships to enhance student success. The UTAUT considers the relationship between the integration (acceptance and use) of technology-enhanced lessons and the experiences of educators in the process (Venkatesh et al., 2012). Educators with positive relationships and attitudes with technology and teaching will most likely contribute to the way technology is used and accepted in elementary schools (Attuquayefio & Addo, 2014).

Venkatesh et al. (2003) discovered that even when educators received technology training, professional development, and administrative support, integration of technology varied according to age and gender. Technology use was also dependent upon an educator's relationships, acceptance, and perspectives about technology and learning. This study was confirmed by UTAUT (Venkatesh, 2012) and was the lens through which I examined the acceptance and use of technology in an elementary school. This study is organized around the three constructs of the conceptual framework: (a) adoption and use of technologies, (b) altering some of the existing instructional relationships, and (c) introducing new instructional relationships.

Updated articles examining teaching and technology relationships in elementary school systems helped school and district officials determine how the use and acceptance of technology in the classroom can lead to student success (Thirunarayanan et al., 2011; Venkatesh et al., 2012; Webster, 2017). Attuquayefio and Addo (2014) looked at similar constructs and concluded that administrators needed to guarantee a *friendly* process of acceptance and use, with the technology changing existing relationships between teaching and learning. Tarhini et al. (2015) reviewed acceptance and use theories and found that the educators' cultural behaviors impacted how technology was used in the organizational setting.

As mentioned earlier, Venkatesh et al. (2003) originally argued that culture, age, gender, and attitude are differences that interfere with the relationships educators had with technology. Venkatesh (2012) studied how educators use and accept technology to improve student success, examined the relationships for teaching and learning with

technology, and determined the relationships educators had with technology to enhance student success. This study considered age, gender, and attitudes explicitly. The theory, however, will inform the context and culture of school, within which new technology users are working in a digital world.

Venkatesh et al.'s (2012) research resulted in many merging studies connected to the field of technology and education. Birch and Irvine (2009) addressed educator perspectives about the relationship between technology and learning beyond kindergarten through fifth grade. Educators responded positively to (a) the possibility of technology improving learning and (b) a qualitative inquiry that allowed them to add their thoughts on future employment. Over 50% of the respondents believed that using technology would improve future employment opportunities. At the same time, Birch and Irvine (2009) looked at voluntariness of use and cautioned that this behavior was difficult to gauge. They concluded that further research should investigate the facilitating conditions that Venkatesh et al. (2003) examined. The current study considers the constructs that look at changing relationships between technology and teaching to enhance student success. The findings from the current study could be used to develop a curriculum or program to help address the challenges teachers have with technology and teaching in the classroom.

Review of the Literature

The objective of the literature review was to identify, analyze, and summarize studies that could help increase awareness about the benefit for teaching and accepting technology and integrating it into literacy instruction in school systems. I collected peer-

reviewed articles, education journals, and textbooks provided by Walden. I used the Walden library to access Walden Literacy through ProQuest and EBSCO. The database used were Sage and Educational Research Complete. The content area of focus was literacy and technology. The following search terms were used: *technology, literacy, education, evaluation, acceptance, usage, CCSS expectations,* and *student success*.

The literature review begins with an overview of the NCLB Act of 2001 (2002) and its directive for elementary technology education and the CCSS (Drew, 2012), with a distinct technology standard that advises, but does not mandate, integrating technology with literacy. The review will continue with an analysis of current research into the elements of the conceptual framework: to understand how educators use and accept technology to improve student success, how they build better relationships for teaching and learning with technology to enhance student success, and how educators' need sustained support from school administration.

The review is well aligned with the study's conceptual framework model UTAUT to understand how educators use and accept technology to improve teaching practices and enhance student success (Venkatesh et al., 2003). The participants' verbal responses from school and district staff will address the question pertaining to existing relationships educators have with technology and teaching in one elementary school. I used the findings when developing a school technology professional development plan for educators.

No Child Left Behind, Common Core

The NCLB Act (2002), rewritten as the ESSA Act (2015), addresses the federal policy for technology integration in elementary curricula. In a section of the bill entitled *Enhancing Education Through Technology*, the national goals state that technology is implemented:

- To ensure that all learners in public school systems become college career ready by the time they graduate twelfth grade.
- To assist every student in meeting the digital divide by making sure that each learner is tech savvy by the time the student finishes eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability.
- To encourage the integration of technology resources and systems that support staff workshops and instructional learning opportunities to establish research-based instructional methods that can be set as best practices by state education agencies and local education agencies.

In 2001, the NYC Department of Education adopted the NCLB Act and prepared a set of standards and expectations that should be followed and met by schools and districts in the system. The act holds all school professionals accountable for student growth and performance across all core subjects. The political leaders who endorsed the NCLB Act did not realize the impact those standards would have on technology integration into literacy in elementary grades. The state standards expect NYC public school systems to include technology programs with instructional practices to guarantee

students meet the literacy requirements of the NCLB (2002) and the voluntary implementation of the CCSS (National Governors Association, 2010), both of which suggest that every student be technologically literate by eighth grade, regardless of student background or family socioeconomic status. The college and career readiness standards secure the K-5th standards and expect that all students in NYC public school systems learn skills through technology and multimedia to academically succeed.

Over the next decade, this intention for technology integration was reinforced as one of the goals of the CCSS (National Governor's Association, 2010). In the English/Language Arts standards, technology is an embedded standard. Students apply technology thoughtfully to improve their English Language Arts skills, speaking, listening, and communication use. They tailor their searches online to acquire useful data efficiently, and they integrate what they learn using technology with what they learn online. Moreover, students remain familiar with the intensities and limitations of various technological tools and mediums and can select and use those tools entirely suited to their communication intentions (Kist, 2013).

Due to the perceived lack of rigor in American schools, as well as the inability to compete in the global workforce, school reformers called for change (Andronico, 2015; Maneen, 2016). Reformers criticized education, stating that there was a lack of quality education for all, in addition to lowered academic standards and achievement (Bray & McClaskey, 2015). Therefore, addressing the challenges of inequality and diversity and addressing the skills necessary for the 21st century, the Council of Chief State School Officers and the National Governor's Association worked in collaboration with educators

to create the CCSS (Brusic & Shearer, 2014; Kist, 2013). The CCSS are a set of well-defined goals and expectations that outline the knowledge and skills that will guarantee students succeed through rigorous, high-quality educational opportunities for all learners (Kist, 2013). The transition to CCSS requires a shift in curriculum, instruction, and, most emphatically, a 21st-century pedagogy that supports technology in every area of school literacy.

Educators' Acceptance and Use

The large, yet undefined, emphasis on technology in the CCSS aligned with English Language Arts continues to be a challenging task for educators (Pandya & Aukerman, 2014). There are no data that prove the lack of the integration of technology with literacy is the primary cause for students' poor literacy outcomes (Piper, Zuilkowski, Kwayumba, & Strigel, 2016). Moore et al. (2013) examined school systems that sustained better relationships between technology and teaching and integrated more technology-driven lessons into the literacy classroom. Their findings revealed students in those learning organizations had a higher academic outcome as compared to other schools around the country that did not have strong relationships between technology and teaching (Moore et al., 2013).

Before one can understand the process of technology usage in school systems, clarity is needed. Dornisch (2013) examined educators' and students' views and opinions about technology use and acceptance. Dornisch determined students' perceptions about how educators used, accepted, and integrated technology for teaching and learning differed. A separation exists between the comfort levels of technology usage and

acceptance and integration by educators and students (Dornisch, 2013; Heitin, 2014; Zhao, 2013). Dornisch found that educators focused more on the availability, feasibility, and value added to improve teaching practices when more technology was included. Furthermore, students saw beyond those measures and focused on the motivational aspect of technology usage and less on the integration of technology into classroom instruction when it came to learning. Dornisch noted it was important to listen to the students' views and opinions about how educators used technology in the classroom, because those views determined the relationship educators had with technology and teaching to improve teaching practices.

Heitin (2014) and Piper et al. (2016) discovered that technology usage and acceptance into school and district literacy instructional and curriculum plans has become a major discussion among schools and district leaders in public school systems. As mentioned, there is no concrete evidence that directly links reading achievement and technology integration, but it is evident that reading indicators in NYC public school systems showed that students' literacy performance has been at a standstill since 2003 (New York Schools, 2016, 2017). A study commissioned by the NYC Department of Education found that students at NYC public schools in the United States who integrate technology with literacy preformed significantly higher on reading performance as compared to school systems that used a traditional approach instead (Heitin, 2014). Even so, many educators continued using some aspects of the technology devices to improve student engagement.

Educators in NYC public school systems struggle to integrate technology with literacy and are reluctant to build better relationships with technology in the classroom (Heitin, 2014; Venkatesh et al., 2012). As mentioned, there is no educational law that mandates the integration of technology with literacy, but Biancarosa and Griffiths (2012) argued that schools that show an increased growth in student literacy success have more educators on the premises that are technology savvy and use that knowledge to accept and integrate technology with school and district educational policies.

Administrators' Role in Acceptance and Use

Since 2002, NYC school systems expected, but did not mandate, educators to build relationship with technology and teaching and align those programs with school and district literacy educational policy to help enhance literacy success for all students. Biancarosa and Griffiths (2012) pointed out that today's educators are in the precarious position of having to use many new digital methods in the classroom to enhance literacy instruction and student success, but educators have limited district and administrator guidance on how to do so in ways that help them build better relationships with technology and teaching.

Attuquayefio and Addo (2014) found that in supportive environments with facilitating conditions, behavior can be positive for technology use. Biancarosa and Griffiths (2012) argued that despite the multitude of technology devices and programs readily available for public school systems, their use is limited in the classroom mainly due to a lack of administrator support, educator knowledge, and positive experiences. Cohen and Bhatt (2012) reported that when it came to technology use, the United States

had no uniform policy or standardized curriculum. Since the late 1990s, school systems nationwide have been examining the gap between those school systems that had updated Internet connections in the buildings and those that did not have updated connections (Cohen & Bhatt, 2012). Even older studies, such as Cho, DeZuniga, Rojas, and Shah (2003), reported that school districts that fail to integrate technology programs with literacy instruction continue to limit how educators use and accept technology in the classroom. If educators are provided technology resources, but are not sure how to use those resources, the acceptance and use of technology in the classroom will be absent (Biancarosa & Griffiths, 2012).

To accept and use technology programs with literacy instruction in elementary classrooms, educators need adequate professional development and training to bring awareness about the benefits that technology integration in the literacy classroom have on learning and teaching for all educators and students (Biancarosa & Griffiths, 2012). In addition, the administrator's role is to provide systematic support. An example of support is the provision of formal school-based technology teams on site who are familiar with the technology programs and devices, as well as providing ongoing services and updates for educators (Attuquayefio & Addo, 2014). School systems that do not integrate technology programs with academic instructional plans and programs have a population of students who cannot manipulate a broad range of technology devices effectively during daily assignments (Cohen & Bhatt, 2012).

Biancarosa and Griffiths (2012) argued that students are already using digital devices at home, but have limited availability to the same devices in schools. The authors

revealed that educators must do more than just use technology devices to provide a digital chalkboard; instead, educators must use digital devices to teach students how to connect literacy skills, especially skills related to the conceptual and knowledge gaps required today (Biancarosa & Griffiths, 2012).

Braverman (2016) examined technology availability in school systems and found that many school systems had technology devices onsite, but did not have an updated Wi-Fi to support their use; thus, educators were not integrating technology with instruction to improve instructional practices. Braverman revealed that more than 20% of schools lacked adequate broadband and more than 39% of schools lacked efficient Wi-Fi. Braverman noted that slow Internet connections, insufficient equipment, and outdated technology programs are issues that prevent school systems from including more technology to improve instruction nationwide. In response to the lack of consistency in school resources, the Obama administration launched *Connect Ed,* an initiative to upgrade the Internet infrastructure in 99% of school systems by 2018, but the process has been slow, and many schools are still waiting for the upgrade. Without the upgrade, technology integration can be challenging for school systems (Braverman, 2016).

Literacy and Technology

The importance of this topic leads many researchers to examine a broad range of school systems nationwide to determine which schools use technology programs to improve literacy instruction. As electronic devices become more affordable, policy makers and school district professionals have considered technology to improve literacy outcomes in the classroom (Piper et al., 2016). Technology integration in U.S. public

school systems has been discussed for years (Miranda & Russell, 2012). The natural use of technology in the literacy classroom depends on an educator's personal beliefs, on an educator's prior knowledge and experience, and on how important and useful the educator feels technology integration is on the class lesson and on students' overall performance levels. Educators who struggle to understand the how and why technology integrated with literacy is important are less likely to use technology during instructional time.

Nikolopoulou and Gialamas (2013) examined educators' beliefs and attitudes and found there were some gaps and barriers that interfered with technology use in the literacy classroom. When learning organizations addressed those gaps, the move toward improved teaching and learning was apparent. More recently, Vadsay, Sanders, and Nelson (2015) examined the effects that a technology-driven classroom had on all students and found that students who are struggling readers benefitted from the use of technology methods in the classroom more than those who were not struggling. The benefits of technology integration outweigh the disadvantages in the literacy classroom (Vadsay et al., 2015). Biancarosa and Griffiths (2012) addressed the promise and challenges felt by school systems regarding the changing technological landscape.

Since 2007, the number of digital devices (e-readers) available for use during literacy instruction has increased dramatically (Biancarosa & Griffiths, 2012). Biancarosa and Griffith (2012) found schools needed to change the technology landscape to customize the way educators taught and students learned. Biancarosa and Griffiths argued that if school systems want to promote a technology savvy classroom environment, they

should use technology programs that support the *Universal Design for Learning*. This design would provide an opportunity for all individuals to learn to use and accept technology devices. Recent studies found the use of more technology devices, like e-readers in elementary schools, supported a 21st-century learning environment, which resulted in better teaching and increased learning for a diverse community of educators and learners (Curwood, 2014; Johnson et al., 2014; Moore et al., 2013).

Literacy and technology should be positively integrated with 21st-century literacy teaching and learning (Zhao, 2013). Researchers in the field of literacy and technology agreed with Venkatesh et al.'s (2012) study, because school systems that provided more technology programs in the literacy classroom promoted positive social change for a diverse community of students, helping build lifelong learners (Attuquayefio & Addo, 2014; Moore et al. 2013; Murnane et al., 2012).

Dornisch (2013) found that there were several challenges that hindered how educators used technology, which explained why educators did not accept and use more technology resources with classroom instruction. Dornisch argued that the challenges that separate the use of digital tools in a school community of educators and learners might be a result of age, gender, and school budget experience. Murnane et al. (2012) found that similar studies in the field of technology and literacy that investigated policy makers, educators, and U.S. school systems found one common trend—a good reader in the 21st century is one that is self-directed, independent, and moves independently to the next step. As mentioned, there are no data that prove that the lack of technology integrated

with literacy instruction is the primary cause for students' literacy outcomes (Piper et al., 2016).

Murnane et al. (2012) argued that while traditional literacy programs have proven effective in public school systems since the late 1970s, educators now must move beyond those outdated teaching practices. Murnane et al. pondered on the traditional methods, because students in the United States must be good readers to succeed beyond the school community. Johnson et al. (2014) and Murnane et al. argued that students who are top readers might not necessarily benefit over those students who are middle and lower readers, but agreed that delivery of literacy instruction does impact the outcome and disputed that literacy gaps are pre-existing before students enter school. The recommendation is that school systems that fall below the spectrum in literacy instruction should focus on the alignment of curriculum and integrate technology programs with literacy instruction starting in primary grades. Furthermore, these alignment procedures would encourage educators to include more technology-based plans into classroom literacy instruction. In addition, educators, policy makers, and the public should have a clear definition about the term *literacy advancement* to determine that students who recognize words and decode text well are not classified as real readers (Murnane et al., 2012). School systems today must examine the structure of literacy instruction and look for ways to integrate technology programs with the school literacy curriculum to support a 21st-century learning environment (Murnane et al., 2012).

Based on the information provided in the readings, school systems that address educational gaps to integrate technology with school and district literacy programs are

systems that foster social change for learners and educators in accordance with a community's educational demands and needs. Recent studies make evident that the integration of more technology during classroom literacy instruction helps students who are learning to read, as well as those who are reading to learn (Biancarosa & Griffiths, 2012).

In the field of education policy and instruction, Cohen and Bhatt (2012) examined how six learning organizations improved literacy instruction. The researchers specifically analyzed how literacy instruction aligned with state and school instructional policy. Cohen and Bhatt found that while addressing the CCSS, they worried whether educators and policy makers would be able to invent, adapt, and implement reliable ways to improve academic instruction.

In the 1980s and 1990s, researchers worked hard to examine and find ways for educators and policy makers to align technology programs with educational policy in U.S. school systems (Dee & Jacob, 2011). Dornisch (2013) examined 101 high school students and looked at how classroom educators integrated technology programs with literacy instruction. Cho et al. (2003) addressed a portion of Dornisch's (2013) question, What consequences make a difference in computer comfort between students? Cho et al. pointed out how popular social media and online technology programs are among the generation of learners, which provided a general explanation of how comfortable students are with the acceptance and use of technology. To examine what consequences such a difference in computer comfort might have, Dornisch used the *Technological Pedagogical Content Knowledge* tool to gain a better understanding of the student-

teacher relationship with technology integration and the challenges encountered in the process. Dornisch found that student perception of teacher ability to use and accept technology for teaching determined how and what technology resources the students were exposed to during instructional time.

Educators need to receive clear and detailed professional development that would assist with the daily use and acceptance of technology resources with literacy instruction (Cohen & Bhatt, 2012). It is essential to provide educators with visual and hands-on activity, so they may experience technology firsthand before they include it in the classroom. Educators must have a well-rounded literacy program that aligns digital media and textbooks to the curricula. Schools should have a digital evaluation program to evaluate any academic flaws. Issues, such as widespread deficiencies, need to be identified to help local school leaders address students' weak academic areas before they spiral out of control (Cohen & Bhatt, 2012). If educators are well informed about including new technology programs integrated with literacy in the classroom, they will be more likely to move away from teacher-centered and textbook teaching, which is holding all learners in elementary grades below the CCSS expected levels in U.S. school systems.

The NCLB Federal Policy Reform Act (2002) requires that all school systems in the United States develop a test-driven accountability system to assist with analyzation of school and student data, allowing them to redefine and make changes to improve the growth and performance for all stakeholders in U.S. school systems (Dee & Jacob, 2011). Cohen and Bhatt (2012) examined the importance of infrastructure development to high-quality literacy instruction. Cohen and Bhatt believed that the "United States has always

been a patchwork of local school systems that share no common curricula, student examinations, teacher education, or means of observing and improving instruction" (p. 117). This study is critical, because the research addressed and considered the legal requirements of NCLB Act of 2001 (2002) and the CCSS (National Governors Association, 2010) as issues that impacted student performance in U.S. school systems. Cohen and Bhatt looked closely at the educational tools and support educators received when linking new technology programs with literacy instruction. Cohen and Bhatt, like Braverman (2016), were most interested in discovering if the mandated CCSS, which became popular between 2010 and 2012 to raise the bar for all students, was supportive. Some primary goals in the joint study were to determine if school systems and policy makers could agree on the development of a literacy program with a direct link with technology to improve the academic success for all students in U.S. school systems.

The qualitative research questions that guided Braverman's (2016) study were: "What organizational characteristics of the education system have hindered the development of consistently strong literacy instructional programs? What changes in school organization could help to develop and sustain consistently high-quality literacy instruction?" (p. 118). The findings revealed that school systems that built a strong community of collaboration were better equipped to reach school and district annual achievement goals.

Rosa and Griffiths (in Cohen & Bhatt, 2012) addressed and supported the notion that reading achievement was positively linked to several components of teaching and learning. To answer the research questions, Cohen and Bhatt (2012) found that education

was not structured, educators' lack of teaching skills was deeply embedded, and the more tenure or security a teacher had, the more relaxed the classroom environment became once the doors were closed. Despite the information educators receive on technology linked with educational measures research, they continue to rely heavily on textbooks and easy reading not linked with technology programs during daily instruction (Cohen & Bhatt, 2012).

School systems that have educators with strong relationships between technology and teaching are known to use more technology with literacy components. Moreover, those school systems have shown improved teaching practices and student success in the classroom (Heitin, 2014). Current state and district data indicate that students' reading performance in NYC public school systems has been at a standstill for more than two years. The National Center for Education Statistics (2015) indicated that literacy achievement in elementary testing grades has either remained the same or decreased slightly over a 2-year period. While there can be many reasons for the reduction, Heitin (2014) argued that meaningful, well-structured literacy instruction must include technology, if educators intend to improve literacy skills for all students. Biancarosa and Griffiths (2012) argued that the inclusion of more technology during literacy instruction helped improve students' overall academic performance. Moore et al. (2013) agreed with Biancarosa and Griffiths and stated that more technology-driven instruction helped school systems meet school and district annual educational goals and expectations. Investigations that examined technology integrated with literacy reveal that the U.S. school system is far behind other countries with technology in the classroom. Other

countries, such as Australia, New Zealand, and the United Kingdom, use more technology in the classroom, as compared to U.S. school systems (Biancarosa & Griffiths, 2012).

Plumb and Kautz (2015), researchers in the field of academic instruction and policy in primary grades, presented the first literature review that revealed the barriers and gaps that hinder the relationships educators had with technology and teaching in early childhood education. The findings were based on educators' experiences and attitudes about the acceptance and use of technology programs in the classroom. Plumb and Kautz argued that the use of technology in the classroom depended solely on how educators perceived the experience and availability. Although there is no concerted effort to track and monitor the effectiveness of technology integration in the classroom, many reports found that school systems that attempt to maintain stronger relationships between technology and teaching are organizations that look to improve teaching and learning for all stakeholders (Attuquayefio & Addo, 2014; Birch & Irvine, 2009; Tarhini et al., 2015).

In 2004, Noeth and Volkov suggested a list of recommendations that is still relevant today. These recommendations can help school systems monitor the use of technology resources. The recommendations would serve a broad community of learners and educators. The proposal (Noeth & Volkov, 2004) included:

- Use of technology as a tracking and monitoring tool to help educators build stronger relationships with technology and teaching.
- Development of a structured plan when aligning and linking technology programs with the school's annual literacy curriculum.

- Use of technology as a form of monitoring and communicating between educators, school administrators, students, and parents.
- Technology implementation in the classroom to stimulate and engage all students.
- Technology to support the handicapped population.
- Technology to address a diverse population of pupils.
- Use of technology methods to determine future trends and issues in school communities.

Even with all the recommendations provided, it is not a guarantee that all educators will sustain good relationships between technology and teaching to enhance students' academic success (Noeth & Volkov, 2004). A recent survey analyzed by Vadsay et al. (2015) revealed that more technology use in the classroom inspired increased learning, increased prior knowledge, and exposed students to multiple ways of teaching and learning.

Implications

In this qualitative case study, I examined the relationships teachers have with technology and teaching in one elementary school in an urban school district to clarify how educators use and accept technology to improve student success and examined how educators build better relationships for teaching and learning with technology to enhance student success. It is unknown if the test scores revealed by the yearly literacy indicators administered by National Education Assessment Program are a direct reflection of traditional instructional practices versus the use of and increased need to integrate

technology with literacy. However, studies done in the last five years do supply evidence that shows technology integrated with educational plans and programs has produced more theoretical advantages and fewer disadvantages for all students in NYC public school systems (Vadsay et al. 2015).

After a comprehensive search of the literature on this topic, and after reading many studies that employ this same conceptual framework, the questions that need further investigation are: What are educators' perceptions of how educators can build better relationships between technology and teaching to enhance student academic success? What are educators' perceptions of administrative and district supports and services that sustain instructional relationships between technology and teaching to enhance instructional practices? The project will contribute to public school educators with future direction of curriculum and professional development. The technology professional development is a 3-day session. I will provide each session during in-service days when there are no students in the building. The focus of the professional development will be to provide educators with updated educational articles and journals on the topic; provide educators an opportunity to discuss and share experiences, challenges, and views about technology in the classroom; and give educators an opportunity to create technology lessons plans and activities to use in the classroom.

Social Change

Due to the advancement in technology devices, school systems should produce a technology-rich environment to support learning and teaching (Principal, personal communication, January 7, 2016). The goal of this study was to determine if the link

between technology and teaching can improve students overall academic success. I may provide updated information necessary to help the learning organization design a technology professional development opportunity to help teachers build better relationships with technology in elementary school to increase the educational success in the learning organization. Improved student outcomes may add to the district's understanding of technological content pedagogy and the importance of sustained professional development to connect high-quality teaching and student achievement (Koh, Chai & Lim, 2016).

Summary

Today's students depend on teachers to impart technology aligned with literacy strategies and proficiencies that are critical for college and life skills. Moore et al. (2013) argued that more technology-driven instruction helped school systems meet school and district annual educational goals and state expectations. All educators, including middle and high school teachers, should understand the responsibility they have to ensure that learners achieve academic success. Now is the time for educators to step up to their responsibility and genuinely improve the lives of today's learners. This study examined teachers' perspectives in an attempt to determine whether teacher self-efficacy, perspectives, and importance attributed to the application of the integration of technology in the literacy classrooms. The problem driving the study was presented and then discussed in relation to the local environment and in the field of technology and literature. Also included were the rationale for the problem selection and the significance of the issue. The case study research method chosen to explore the problem was

supported by Venkatesh et al.'s theoretical framework. A description of the framework was provided with an explanation on how the framework relates to the study. Next, the literature review described teachers' current educational instructional practices toward meeting the recommendations of the CCSS in the disciplines of area of technology and literature. Research presented in the literature review further confirmed the benefit of considering teacher perspectives toward their role in integrating technology in the literacy classroom in order to equip learners with the skills they require to be ready in the 21st century.

Section 2 of this paper addresses the procedures and methodology I used to examine teacher perspectives and the values they hold toward their role as content area classroom teachers. In Section 3, I present the proposed project for this study that will consist of a 3-day professional development to help teachers maintain stronger relationships with technology and teaching. In Section 4, I will cover the recommendations for alternative approaches and reflect on myself as a scholar, practitioner, and project developer.

Section 2: The Methodology

Introduction

In this section, I cover the following topics: the methodology used to address the local problem, the research design, alignment of the conceptual framework, participant selection, protection of participants' rights, my relationship with participants, and data collection and analysis.

Research Qualitative Approach

The research design I chose was a qualitative case study. This qualitative case study's objective was not to develop and employ mathematical models, theories, and hypotheses about a phenomenon; therefore, a quantitative study was not used (Creswell, 2013a). I disqualified the other qualitative methods. I did not use ethnography research, because it focuses on a culture of groups in a natural setting over time. My study involved the value of a strategy and not the cultural group. I rejected a narrative design because the focus of this study was on educators' relationships with technology in elementary school not on life stories (Creswell, 2012; Yin, 2015).

Case study research is different from other qualitative research because it involves looking at a bounded system. In bounded systems, there is a specific number of participants who can be interviewed. Researchers can use qualitative case studies to render a rich, thick description of a given group. Yin (2015) argued that case study research allows the researcher to gain real observable information from each participant while data collection is actually taking place. A case study was most appropriate because a specific group of people (school educators and administrators), who were experts in the

field of education, discussed the importance of improved teaching practices and student success. Semi-structured interviews questions were broad (see Appendix B), leaving the participants (teachers in kindergarten through fifth grade) to construct their own meaning in their responses derived from their experiences (Creswell, 2012).

Participants

Criteria for Selecting Participants

The organization I chose had a population of 60 staff members and 700 students. Creswell (2013b) examined the prominence of the inclusion of samples that are substantial in size and can supply perceptiveness about a phenomenon. In qualitative measures, it was suggested to choose less rather than more participants to obtain a deeper understanding (Creswell, 2012; Yin, 2014). Moreover, the school population was small, but most of the educators at the school had been employed there for more than 14 years. The school's annual Quality Snapshot revealed that the school received an effective rating for student achievement for the 2015/2016 and 2016/2017 school years (NYC Department of Education, 2016). I chose the sampling of participants in this study based on the school educational environment, educator experiences teaching in elementary grade classrooms, and educator existing relationship with technology and existing knowledge with literacy requirements.

At the start of each school year, the urban school district mandates a 2-day professional development for all educators in the district to provide information on updated literacy requirements and laws. Teachers were using technology in the literacy

classroom as way to improve teaching and learning. The principal in the school under study stated,

> Most classroom educators at the school have good relationships between technology and teaching and they use technology to enhance teaching and learning. Technology and teaching relationships have been a part of one urban school in the XYZ school district operational procedures for more than two years. (personal communication, January 7, 2016)

Yin (2015) explained that sampling can be at the broader level or narrower level depending on the nature of the study. As Yin (2015) discussed, the sampling of participants should be chosen based on the level of experiences and opinions that can be obtained on the situation being studied. Participants that are experts in the field are able to openly discuss how technology and teaching relationships in the literacy classroom impact teaching practices and student success. In this investigation, I interviewed nine classroom educators, two school administrators, and one district administrator from one school within the district, with varied beliefs and perceptions about technology integration.

Justification of Participants

I used purposeful sampling to select 12 participants from one school in an urban school district for this qualitative study, allowing me to collect detailed information and explore the relationships educators had with technology and teaching to enhance student success. There are 47 educators, one head principal, two assistant principals, and two technology specialists employed at the school under investigation. Of the 52 staff

members at the school, 25 kindergarten through fifth grade educators have been at the school for more than 14 years. I selected school and district administrative staff based on their expertise. The administrative staff has been at the school for more than seven years. Consequently, I looked for participants ranging in age from 25 to 65. I employed homogeneous sampling strategies to ensure that all participants varied in number of years teaching, grade levels taught, gender, age, and teaching credentials. All participants were employed full time for more than five years at the approved school district. Therefore, I invited educators who could offer valid information and met study criteria to participate in the study.

I chose participants from this school because the school principal encourages classroom educators to use technology in the classroom and expects to install all classrooms in kindergarten through fifth grade with updated technology devices (desktops, tablets, smart boards) by the year 2020. School educators and administrators who had more than five years teaching in elementary classroom would be better able to share and discuss existing technology and teaching relationships, helping me gain a deep understanding about a specific phenomenon. Out of the 19 willing participants from one school in the district who completed a questionnaire and signed and returned a consent form to me at a later date, 12 were selected and their uniformity was beneficial to the study's guiding questions. The sample size allowed me to obtain comprehensive and solid evidence to address the concerns presented by each of the research questions: What are educators' perceptions of how teachers can build better relationships between technology and teaching to enhance student academic success? What are educators'

perceptions of administrative and district supports and services that sustain instructional relationships between technology and teaching to enhance teachers' instructional practices?

Once all demographic questionnaires (see Appendix E) and consent forms were returned to me, I reviewed the demographic questionnaires to obtain educators' qualifications for the study. Table 3 shows the demographic data from one school in the district.

Table 3

Demographics

Participant	Age	Gender	Grades Taught	Years of Experience	Teaching Credential Grades
PA	31-50	Female	Second, Third	20	First – Sixth, Dual[a]
PB	31-50	Female	First	6	First – Sixth
PC	31-50	Female	First – Third	10	First – Sixth
PD	31-50	Female	First	17	First – Sixth
PE	31-50	Female	Second	17	First – Sixth
PF	31-50	Female	Fourth	12	Special Education, First – Sixth
PG	31-50	Female	Third	15	First – Sixth
PH	51-64	Female	Third	15	First – Sixth
PI	20-30	Male	Fifth	15	First – Sixth
PJ	31-50	Male	Tech Coach	9	Administrative
PK	31-50	Female	Asst. Principal	14	Administrative
PL	31-50	Female	District Literacy Rep	28	Administrative
PM	31-50	Female	Fourth	12	First – Sixth
PN	31-50	Male	Second	2	First – Sixth
PO	20-30	Female	Fourth	8	First – Sixth
PP	51-64	Female	Fifth	9	First – Sixth
PQ	31-50	Female	Second	15	Pre-K – 12th
PR	66+	Male	Fifth	23	Pre-K – 12th
PS	66+	Male	Fourth	27	Pre-K – 12th

[a]Dual – special education and general education

Participants' Demographics Overview

Fifteen participants from one elementary in an urban school district were qualified to take part in the study. There were more female participants, ranging in age 31 to 61 years, willing to take part in the study; all 15 female participants met the study criteria. Out of the four willing male participants, only two met study criteria. Participants had a teaching certification in elementary grades. All participants were above the age of 18, but did not exceed the age of 65. All participants had five years or more of teaching or administrative experience in the school district. As confirmed by Venkatesh's (2012) UTAUT, age and gender impact how people use and accept technology. The age and gender was included as a key factor on the questionnaires based on Venkatesh et al.'s (2003) conceptual framework, which argued that cultures, age, gender, and attitudes are gaps that interfere with the effective use and integration of technology to enhance learning and teaching. It is most helpful to obtain information from both females and males between the ages of 25 to 65, because it provides information from different viewpoints (Venkatesh et al., 2003). Of the 19 willing subjects at the school under study, 15 females between the age of 31 and 64 and four males between the ages of 31 and 66 completed questionnaires and signed consent forms.

Analysis of the organization's demographic data led to the selection of 12 participants who returned questionnaires, signed consent forms, and met study criteria at one school in the district. I chose 10 females and two males to take part in the study. Each selected participant received an assigned letter corresponding to their names to protect their identify at all times throughout the study, embedded with the welcome and

interview schedule that revealed time, date, and location via email or hand delivered by me. I selected and informed 12 participants (nine classroom educators, two school administrators, and one district administrator) via email or in person that they had been selected to participate in the study. All participants who were not chosen received a thank you for your interest letter via email. The letter explained that participants were chosen in the order that all documents were returned, so the first 12 participants to return all documents and who met study criteria were selected first.

Although I selected only 12 participants, of the 19 willing participants who completed and returned all documents, 16 met the study criteria. Each participant selected to take part in the study was over the age of 18 and met study criteria. Since the number of participants did not fall below the desired 12, I did not have to hand pick any additional participants who completed the questionnaire and signed informed consent forms to invite them to fill the gap. Since there were no issues, I did not have to remove any participants I selected initially to take part in the study. There were no additional participants selected later

Gaining Participant Access and Establishing Working Relationships

Although I had never had supervisory duties, I was a former elementary school teacher in the school district under study, so I understood firsthand that teaching and technology had been openly discussed for more than two years. I held no relationships with any of the participants outside of the school. I understood that the principal had been working toward installing and updating new technology resources, such as e-readers, Promethean boards, desktops, and laptops, in all kindergarten through fifth grade

classrooms. School administrators believed that educators needed more professional development and training with managing these new technology resources. The principal agreed that the integration of technology in the classroom literacy instruction could benefit from further investigation to determine its effectiveness. School administrators are working hard to enforce the use of technology, which means the principal will be moving toward plans and programs to help educators build stronger relationships with technology and teaching. School administrators felt that my study was an effective way to bring awareness about educators' acceptance and experience, in addition to the support needed by school and district administrators when integrating technology in the literacy classroom.

Once I received Institutional Review Board (IRB) approval (No. 08-21-17-0437057) from Walden University, I contacted the principal via email at the school under study and requested a meeting with kindergarten through fifth grade educators and school administrators to present a brief overview of the study's purpose and procedures. After the staff meeting, I asked the principal if I could have a few minutes more with the classroom educators. This was done to ensure privacy and protect the confidentiality of all participants. Next, at the meeting, I verbally asked all participants permission if I could obtain their emails. I asked all participants permission to email or hand deliver a participation letter, a demographic questionnaire, and an informed consent form to be reviewed, completed, signed, and returned via email 48 hours later or hand delivered to me 72 hours later. The questionnaire took less than five minutes to complete and contained five questions regarding participant demographics, gender, age, grades taught,

years of experience, and certifications held. At the convenience of the participants, I returned to the school 72 hours later to collect questionnaires and consent forms that were not returned to me via email within the 48 hour window. All participants had my contact information if there were any questions or concerns throughout the study.

Once the questionnaires and informed consent forms were returned to me in person or via email within a 3-day time frame, I reviewed each questionnaire to determine each participant's qualification. I selected 12 out of the 19 participants who were willing to take part in the study. After the selection process 24 hours later, I returned to the school to give each participant a copy of their signed informed consent forms, a welcome letter, and an interview schedule that included the time, date, and location of each of the scheduled interviews. Participants were given a day to read, confirm, and sign the interview schedule and return a signed copy to me in person. I return to the school 48 hours later to collect all signed interview schedules from each participant in person. After each interview schedule was confirmed and signed by each participant, the interview process began.

Measures for Protecting the Rights of Participants

I maintained a professional relationship with all participants during and after the study. The voluntary nature of the study and study requirements were overtly obvious in the informed consent form. Even after the participants received the questionnaires and informed consent forms from me via email or hand delivered, they were still given the option to participate or not participate in the study without repercussion of any kind. Since participant's names were required for the interview selection process, after I

analyzed questionnaires, I assigned all participants a letter from the alphabet, so that only I knew their identities to ensure all recognizable information was kept confidential. Participants had contact with me during the face-to-face interviews in a safe, secure conference room at the school site. I sent to and received from the participants all documents related to the study via email or in person. The informed consent form provided participants with a full description of the study, study guidelines, expectations, and most importantly, ensured participants they may withdraw from the study at any time without repercussions of any kind. Required by the IRB, informed consent should include, "A detailed description of the project, a description of any potential risks involved in the voluntary nature of the study, and a Confidentiality Statement" (Lodico, Spaulding, & Voegtle, 2010, p. 18). The peer debriefer signed a confidentiality agreement (see Appendix E) form to ensure complete confidentiality throughout the study. I downloaded and saved all digital questionnaires and consent forms on a password-protected hard drive and a USB flash drive. All digital copies were printed and the hard copies were placed in a sealed envelope. All digital copies were permanently deleted from my computer hard drive. All other hard copy documents pertaining to the study (members checking, working manuscripts, interview schedules, and journal notes) were labeled by project title, date and time, location, and documentation type and placed into a large sealed envelope. The sealed envelope containing all the data was kept in a metal lock box at my home only seen by me.

Data Collection

Description and Justification of Data Collection

Prior to the selection of participants, demographic questionnaires and informed consent forms had to be completed, signed, and returned to me via email or hand delivered before I determined participant qualifications. I conducted organized 45- to 50-minute, semi-structured interviews with the school and district educators over a 2-week timeframe during instructional days when there were no students in the building in a conference room at the school under study. I used various tools: a researcher journal, member interview log, Dragon (a computer audio and transcriber), and Microsoft Office Word program to collect and record participants nonverbal and verbal data to address the study's primary research questions. The research questions were: What are educators' perceptions of how educators can build better relationships between technology and teaching to enhance student academic success? What are educators' perceptions of administrative and district supports and services that sustain instructional relationships between technology and teaching to enhance instructional practices? I used 12 guiding interview questions to address the study research questions (see Appendix C).

The interview protocol designed for this case study contained questions designed by me aimed to obtain information about the relationships participants encountered with technology when using technology to enhance learning and teaching and how administrators provided supports and services in the process. I used an audio recorder to reinforce the interview protocol (see Appendix B). I transcribed all nonverbal and verbal data on member interview logs and in Dragon and created working manuscripts and

charts using a Microsoft Office Word computer program on my private computer. I used a journal to handwrite participant nonverbal data. Member interview logs and Dragon, a voice computer software program, were used to collect participants' verbal data word-by-word. All written responses and transcripts were analyzed and placed on a working manuscript after each interview. I used that information to highlight the lexical similarities, noticing educators' acceptance and use of technologies, alterations of the existing teaching experiences, and new pedagogical behaviors related to the conceptual framework. I placed that coded information on data tables and charts created by me: (a) acceptance and use of technologies, (b) relationships for teaching and learning with technology, and (c) relationships to enhance student success. I recorded a summation of the data findings in Microsoft Word on my personal computer.

Semi-structured interviews as my primary source for data collection helped the participant to discuss openly their real relationships with technology to enhance student success. I collected and gathered participant verbal and physical data in a natural setting to bring meaning that describes a process that is expressive and persuasive in language (Creswell, 2013a).

System for Keeping Track of Data

I placed all hand delivered paper copies of the questionnaires, consent forms, and interview schedule in a sealed envelope. I downloaded all electronic copies of the questionnaires and consent forms onto my personal computer and saved on a password-protected USB flash drive and permanently erased downloaded consent forms and questionnaires from my personal computer hard drive. During and after each interview

session with participants, I immediately followed each interview protocol. When themes appeared, I took quotations from the transcripts and placed them in a working manuscript created by me using a Word program on my personal computer. All transcribed data were collected word-by-word in a computer software program and placed on a member interview log, thematic charts, and a working manuscript created by me in a Microsoft Word program on my personal computer. Nonverbal data were collected in the researcher journal and placed on a nonverbal chart created by me using a Microsoft Office Word program on my personal computer. All data were labeled by project title, data, locations, date, time, and a letter from the alphabet corresponding to each participant. All data recorded on member logs and charts on my personal computer were saved on a password-protected USB flash drive and removed from my computer hard drive. A paper copy of the member logs, charts, and manuscripts were printed and placed in a sealed envelope with all other hard copy documents and journals pertaining to the study. The large envelope was kept in a metal lockbox at my home.

Data Collection Access and Researcher Role

Prior to the study, in person or via email, the head principal at the school of study signed a letter of cooperation that granted permission to conduct research in the school building. Once the principal granted permission to conduct the study, I attached a copy of the signed letter of cooperation from the school principal, along with my Form C and any additional documents required for IRB approval. I waited for final IRB approval from Walden University. When I received IRB approval (08-21-17-0437057), I was able to begin collecting data at the chosen school under study.

As a first step, I contacted the principal in person to request and schedule time, date, and location at the school under study to meet with kindergarten through fifth grade classroom educators and administrators. Next, at the meeting with staff members at the school, I provided a detailed study overview, voluntary nature, procedures, and purpose of the study. I asked permission to obtain email addresses from all participants who attended the meeting. I asked permission to send all participants a demographic questionnaire and informed consent form via email or in person. At the conclusion of the meeting with staff members at the school, I asked that all questionnaires and consent forms be returned to me 48 hours later via email or 72 hours later in person. At the convenience of the participants, I returned to the school 72 hours later to collect all questionnaires and consent forms that were not emailed to me.

Researchers Experiences and Biases

I have been an elementary school teacher in this school district for more than 20 years and have a rapport with most of the participants in district. I am currently a kindergarten special education teacher working in an inclusion classroom setting in the school district. After school, I am the curriculum program assistant in the district. I collaborate with school administrators and educators from other schools in the district when designing the school's yearly literacy curriculum. Kvale and Brinkmann (2009) warned that caution must be taken when the researcher is the primary instrument of data collection and analysis. As I was the primary instrument for data collection, I was careful to avoid biased data reporting during data collection. During each interview, I served as active listener without interrupting the participant. I did not agree or disagree with any

participant responses throughout the interview. I used member checking for participants to check the viability of the findings for the setting and accuracy of my interpretation of their own data used in the findings. I also used a peer debriefer (staff member at the school) to review the data and check for logical development of themes and conclusions. I ensured that the peer debriefer signed a confidentiality agreement form. I made certain that the peer debriefer never had access to any identifying participant information.

The interview questions in this study were not misleading and did not confine the explanations of the participants (Creswell, 2013a). Twelve participants' verbal responses and written documentation showed significant insight or confusion about relationships between technology and teaching to understand how educators used and accepted technology to improve student success. I used the information gathered from these interviews to provide suggestions and next steps when using technology in the classroom.

Data Analysis

According to Creswell (2013b), the six steps of analyzing qualitative data are as follows:

1. Preparing and organizing the data for analysis;
2. Involving in an initial exploration of the data through the process of coding it;
3. Applying the codes to develop a more general picture of the data descriptions and themes that support Venkatesh et al.'s (2003) conceptual framework to understand how technology is accepted and used to enhance student success;
4. Representing the findings through narratives and visuals;

5. Getting an interpretation of the meaning of the results by considering the results and the literature that might guide the findings; and
6. Conducting procedures to confirm the accuracy of the results. (pp. 237-238)

When analyzing the data, I used Creswell's (2013b) six steps to guide the relationships between technology and teaching relationships in one learning organization. I developed coded and thematic charts to help me better understand educators' relationships between technology and teaching to enhance student success (Venkatesh et al., 2003). After each interview session, I organized the data by placing it on coded charts, thematic charts, and working manuscripts. Creswell (2012) worked with qualitative data and believed that when working with data the researcher must prepare and organize it, code it, interpret it, and confirm it (Creswell, 2012). I used a detailed analysis to generate the transferability of the findings.

Findings

The purpose of this investigation was to examine how first through fifth grade educators in one school in an urban school district accept and integrate technology with literacy to enhance literacy teaching and learning. To achieve that purpose, experienced elementary classroom educators and administrators discussed their perceptions about the use and acceptance of technology in one school organization. Based on the purpose of the study, I designed a demographic questionnaire (see Appendix F) to gain a better sense of the teaching experiences educators had in elementary school classrooms. Preliminary findings confirmed Venkatesh et al.'s theory that age and gender did have an impact on participant's participation at the study school.

To protect the confidentiality of each participant who completed a demographic questionnaire, all classroom teachers (nine participants) were assigned a letter, starting from Participant A through Participant I (PA through PI). Each administrator (three participants) was assigned a letter starting from Participant J through Participant K (PJ through PK). During each interview, all verbal responses were transcribed using participant letters (PA through PK). The conclusion of Section 2 will provide a description of the data collected during face-to-face 40- to 50-minute interviews with 12 participants for this study. I will also include the data analysis process and the concluding findings aligned with the research questions.

Themes Supported by Data Aligned with Research Questions

Theme 1: Technology devices used by educators. The first week, I conducted 45- to 50- minute, face-to-face interviews in a conference room at the study school during professional days when there were no students in the building. During the collection of interview data, 100% of the participants (classroom educators PA through PL) revealed the type of technology used in elementary school to enhance student success. Table 4 shows that classroom educators (Participants PA through PI) were familiar with the basic form of technology devices used to enhance student success, such as computers, smart boards, projectors, radios, tablets, smart boards, lab tops, and desktops. However, when school and district administrators (PJ through PL), were asked, “How would you describe the overall acceptance and use of technology by classroom educators?” (Question 9), participant verbal data revealed that administrators were less familiar with how classroom educators used different types of technology to enhance learning, but did know how

educators used technology devices (websites, cloud drives, and educational apps) to store lesson plans, communicate with parents, and track students overall academic process. Participant overall comfort level with technology usage in the classroom revealed that 90% felt confident, and 10% of educators felt uncomfortable and expressed concern for some additional support.

Table 4

Theme 1: Technology Devices Used by Educators

Interview Question	Participant	Digital Devices Used
1, 2	PA	Smartboard, computer
1, 2	PB	Computer, smartboard, laptop
1, 2	PC	Desktop, smartboard
1, 2	PD	Smartboard, CD player, iPad, iPod
1, 2	PE	Computer, projector
1, 2	PF	Computer, smartboard, radio
1, 2	PG	Promethean board, computer, tablet
1, 2	PH	Digital phonics foundation promethean board
1, 2	PI	Computer, desktop, promethean board
9	PJ	Computer, cloud drive
9	PK	District-approved website
9	PL	Educational free apps

Subtheme 1. Use and acceptance of technology. Use and acceptance of technology addressed Interview Question 1 and 2 (IQ1 and IQ2). Verbal data from nine classroom educators, PA through PI, revealed that educators at the study site are willing to use some form of technology in the classroom, but administrators are not aware of how educators use technology to improve teaching and learning. Before the school under study can move forward with the use and acceptance of technology in the literacy classroom, administrators must be made aware of the type of devices educators are using in the classroom. Both educators and administrators should determine together how the

type of technology used in the classroom enhances student success.

IQ1: What digital devices have you used in the literacy classroom? Comments for IQ1 included the flowing. Participant PA stated that "computers and smart boards" were used regularly in her 12.1 special education classroom setting. Participant PB replied, "Computers, smartboards, laptops were used to teach all subject." Participant PC said, "Desktops, smartboards are in the classroom but rarely used." Participant PD stated, "Smart Boards and CD players on occasion, iPads and iPhones." Participant PE said, "computers and projectors." Participant PF replied, "I have used the computers, I have used radios for listening centers, I have use the Smart boards on websites and do interactive games." Participant PG remarked, "Promethean board, computer and tablets." Participant PH revealed, "I use a digital phonics program. I use the promethean board." Participant PI stated she used "laptop, computers desktop computers and promethean boards."

Participants' verbal data revealed that eight of the nine classroom educators are using some form of technology to enhance teaching and learning. Most all classroom educators use or have used a computer, a desktop, a promethean board regularly in the classroom. A small percentage of educators use or have used another type of digital devices (IPads, I Pods, IPhone) different from the devices used by 80% of the educators.

IQ2: How confident are you with the use and acceptance of technology in the classroom. Representative comments for IQ2 included the following. Participant PA stated, "I feel confident but would like more training." Participant PB said she was "extremely comfortable using and accepting tech in the classroom. It provides visual,

auditory and kinesthetic learning opportunities as well as modeling for new concepts." Participant PC replied, "The overall acceptance and use of technology in the classroom is moderately good." Participant PD remarked, "I enjoy using technology to teach across the phonics, it makes learning fun and engaging for all students." Participant PE replied, "I am not comfortable yet but I'm eager to use it. I know that they are very useful in a literacy classroom." Participant PF stated, "I'm very confident with the acceptance of it because students love it because it is motivating." Participant PG felt "comfortable with the computer because I have used it many years but the promethean board is new so I am not as comfortable with that." Participant PH revealed, "I have to become more and more familiar with programs that are available." Participant PI responded, "On a scale of 1 through10, I would say maybe 6 or 7, but I know how important it is, so I'm willing to learn as much as I can."

Participant overall comfort level with technology usage in the classroom revealed that 90% felt confident and 10% percentage of educators felt uncomfortable and expressed concern for some additional support.

Theme 1 addressed IQ1, IQ2, and IQ9. Verbal data was collected from 12 participants, classroom educators, and the administrators (PA through PL). Verbal data responses to IQ3 revealed the relationships educators and administrators have with technology and teaching in the literacy classroom. A small percentage of educators at the school do not use technology as much as they would like and expressed that the relationship with technology and teaching is not ongoing. Once it was determined by 12 participants (PA-PL) verbal responses about the use and acceptance of technology in the

study school it was time to examine Theme 2 to determine what existing relationships classroom educators (PA-PI) had with technology and teaching.

Theme 2: Relationships with Technology. Relationships with technology addressed IQ3 through IQ6 from nine classroom educators (PA through PI).

IQ3: How often do you integrate technology with literacy? Responses to IQ3 included the following. PA responded, "I use technology sometimes, but the school dose not mandate the use, so not as often as I should." Participant PB remarked,

> Daily, 4-5 times a week, I use smartboards to provide visual models, sentence starters, vocabulary enrichment, punctuation practice, word choice, writing practice and enrichment, smartboards in the classroom provide auditory cues and examples. Computers and laptop are used in my classroom along with a program used by the school called I-Ready to reinforce math, reading and phonics skills. The program can be used in school and reinforced at home.

Participant PC said, "Since teacher and students are at various levels when it comes to the utilization of technology in the classroom, I would say not as often as I would like." Participant PD stated, "I integrate technology with literacy every day I use a reading program called Raze Kids to help students become more confident readers." Participant PE replied, "I integrate and use a program called Star fall and other literacy programs to help struggling students. Mostly because it is more visual". Participant PF replied, "I would say integrated literacy and technology on a daily basis it's probably the rare exception when I don't incorporate technology with writing students really like using technology devices when writing." Participant PG said, "I use technology at least three

times a week; it is important to use it so students not only will get hands-on experience, but each child learns differently. Every student will be given an equal chance to learn." Participant PH remarked, "I use technology sometimes in my class, but I have to become more and more familiar with programs that are available." Participant PI replied, "I would say probably for five times a week. There are several digital programs that our principal would like educators to use."

IQ4: How can a classroom environment enhanced with technology improve teaching and learning? Replies to IQ4 included the following. Participant PA said that a classroom environment can improve teaching and learning, as it "provides multi sensory/hands-on approach." Participant PB remarked,

> It provides another platform for students to learn. It provides opportunities to work in whole group and small group as well as independently work with another student. It provides opportunities for creativity and problem solving. It allows real time and realistic representation of people from a diverse cultures and gender.

Participant PC replied, "A technology-driven classroom environment enhances learning because it provides learning on multi levels, visual, auditory and hands-on instruction." Participant PD stated, "Technology makes the classroom fun and engaging." Participant PE said, with the use of technology-driven lessons, teachers are able to differentiate tasks on all students' academic and emotional level. Participant PF commented, "Students get to hear it and see it in different ways, also it helps teachers learn new ways to teach." Participant PG replied that in a classroom, technology can improve teaching and learning by improving all academic areas. Technology allows students to be more motivated and

engaged and also able to go home and explain to their parents exactly what they learned in the classroom. Participant PH remarked, “Technology improves classroom environment by helping students become engaged in what they are learning. It improves teaching by helping teachers reach more students working with struggling students more.” Participant PI responded, “I use a lot of animated things that help the kids because most kids love music and videos, it's nice to have a variety of sources to use to keep the kids interested in engaged.”

IQ5: Do you feel that technology improves classroom instruction and increases student success? Replies to interview question five included the following. Participant PA replied, “Yes, it provides the multi-sensory approach that my students need.” Participant PB stated, “Yes, it improves student success because learning can be tailored to meet individual needs and develop weak skills.” Participant PC agreed, “As I stated in question four, it serves a diverse community of learners.” Participant PD said, “Technology improves student learning when used appropriately. Students learn faster when they are given technology-driven lesson.” Participant PE said, “Yes, it does when students are taught and are introduced to the way it works and how to retrieve information. I believe it can enhance student achievement and their work.” Participant PF stated,

> I definitely believe that it improves instruction because it exposes students a different way to learn. I especially think that a technology-driven classroom increasing student success because our society now is becoming so technology-

driven so in order for them to really be lifelong learners and successful outside of school they have to know how to function with technology.

Participant PG said, “Technology has a big impact on the classroom instruction it does increase student success. Not only does technology integrated with literacy increase student success, but it helps with motivation and engagement also, provides tutoring for struggling students.” Participant PH responded, “Technology can improve student learning in some cases. Some students are more into technology while others are still not involved. I would say technology improves classroom instruction for half of the students in a single classroom.” Participant PI replied, “I do because I-Ready the digital reading program we used last year the kids were able to work on their level and retain the information and we were able to track and see previous lesson material.”

IQ6: Describe how the school’s current technology program is implemented into the school’s literacy curriculum and instruction. The participants’ replies to question six included the following. Participant PA stated, “The school used an online program called I-Ready that can be used in school and at home those are some ways technology is implemented.” Participant PB said, “It is implemented through an online program called I-Ready, which is tailored for each academic individual strengths and weakness.” Participant PC responded, “Well, the school does not have a mandated technology program, so each classroom educator implements it according to their own knowledge, experience, and acceptance.” Participant PD stated, “Students are able to use an online program used by the school called I-Ready.” Participant PE replied, “Some teachers use the promethean board and have some training and are expected to use that

training into literacy curriculum." Participant PF remarked, "Right now we have a literacy unit of study that is tied to state expectations expeditionary learning; although, the alignment of technology is limited, the school should provide much more support and resources to all educators so that we are all on the same page." Participant PG said,

> In our school, technology is integrated with the use of school reading, math, and phonic computer program called I-Ready. Students are able use the program in class and at home to read different stories, increase vocabulary and math skills. The program keeps track of student progress and teachers and parents can use that information to help students strengthen areas of weakness.

Participant PH said, "My students and I use what is available in the school, which are not mandated programs." Participant PI stated, "Students use laptop computers, so they can write essays and do independent work. I-Ready is the newest digital program we use in the school and at home."

Theme 3: Administrative Supports and Services. Administrative supports and services addressed IQ7 through IQ12 from nine classroom educators (PA-PI) and three school administrators, (PJ-PK).

IQ7: Describe how school and district administrators can help educators build better relationships with technology and teaching. IQ7 responses included the following. Participant PA stated that "provided monthly workshops" by school and district administrators would help educators with the use and acceptance of technology devices in the classroom. Participant PB said, "Provide current professional development and time to use new technologies." Participant PC remarked, "The school district could

move forward to help educators build better relationships between technology and teaching by providing ongoing supports, like weekly professional development in addition to paid after-school professional development." Participant PD responded, "School administrators can give professional development to help increase the use of technology in the everyday classroom ATM and they need to make sure that teachers are using it effectively and not just a glorified whiteboard." Participant PE said, "Onsite and offsite professional development that is ongoing. Teachers also need an opportunity for collaborative grade discussions and meetings to talk about how and when to use technology." Participant PF replied, "They need to provide a lot of professional development and provide more updated technology devices in the classroom." Participant PG said, "Administrators can help educators build a better relationship with technology by having more professional development courses where they can enhance our learning and we can teach the students much better. The school can also have a checklist where they can see where we need a little bit more technology support." Participant PH responded, "School administrators can help teachers, especially teachers like me, who are not as computer literate as other teachers in the building. Provided workshops and assisting us also by having colleagues that are experts come into the classroom and help by modeling and demo lesson." Participant PI said, "The administrators themselves have to be comfortable with it and believing it and it'll be easier for them to it will slow it first build up confidence. If they know it well it would be easier for them to turnkey it to us."

IQ8: How would you describe administrative supports and services to help educators build better relationships between technology and teaching professional

development opportunities? Following are representative comments to IQ8. Participant PA stated, "Good support from administrators but could be better, as a special education teacher, often times professional development is not geared towards my students." Participant PB said, "Although administrators provide new software, educators need additional time to explore new technology devices and software programs to become effective. We need more professional development opportunities and time to see more demonstration." Participant PC responded, "School and district funding affect technological professional development learning opportunities for educators." Participant PD said, "Schools have a hard time putting professional development in place for educators mainly because administrators don't really know what educators need and they forget to implement the technology factor in their professional development." Participant PE said, "Since the trend is a technology cultural environment, teachers are offered but not required to engage in technology training and professional development." Participant PF said, "I think ongoing professional development would make teachers more comfortable with integrating technology. Professional development sessions should be designed to help classroom educators plan and work together so that they can learn by doing that would be really helpful." Participant PG replied, "I feel that administrators can support educators by having ongoing professional development courses that help educators relate to students in the 21st century." Participant PH said, "Administration assistance with technology in school is mostly nonexistent. Educators must rely on each other when learning to use old and new technology." Participant PI responded, "Although, professional development, workshops to help us with computer technology, is

necessary, administrators do provide support, but not as much as we need. I think they don't know what we need and we don't complain much."

IQ9: How would you describe the overall acceptance and use of technology by classroom educators? Following are representative comments to interview question nine. "Technology became available to teachers at different times" (PJ). "Administrative support in the school is nonexistent, educators must rely on each other when learning to use and accept new technology in the classroom" (PH). "I believe that teachers have embraced technology at different rates and some teachers immediately began to incorporate technology into their classroom without any additional support" (PI). But, some teachers viewed the relationship between technology and teaching as "an intrusion meant to confuse and befuddle them" (PL). "When smart boards were initially rolled out not everyone received one, it was given out to some teachers, because budgets did not permit for all teachers. Some teachers still do all their planning by handwriting' (PL). Participant PK stated, "The non-uniform manner in which the technology becomes available is one of the biggest reasons why more teachers do not embrace it." Participant PL said,

> I think the acceptance and use of technology by teachers depends on their age. I feel that teachers who are younger have more experience using technology because they grew up with it, because they are more comfortable using the technology, they take more risks in the classroom by using it – technology is second nature to them.

Participant verbal responses to IQ10, Theme 3 described how the school and district can move forward when helping educators build better relationships with technology and teaching.

During the second week, I conducted additional 45- to 50-minute semi-structured interviews in a conference at the school during instructional days when there are no students in the building with two school administrators and one district administrator. I asked the assistant principal, technology liaison, and the district curriculum specialist four additional open-ended interview questions to prompt the participants to address the research question: What are educators' perceptions of administrative and district supports and services that sustain instructional relationships between technology and teaching to enhance instructional practices? The assistant principal in one school in the urban school district, one school technology liaison, and one district curriculum specialist brought clarity about the supports and services needed to assist educators with the integration of technology in the literacy classroom. Participant verbal responses provided me with a clear understanding of the future educational plans and support educators will receive from school administrators during the integration of technology in nine elementary school literacy classrooms.

Participant verbal data to IQ10, Theme 3 revealed how the school and district can move forward to help educators build better relationships with technology and teaching. Participants' verbal data revealed that 100% of administrators agreed that all educators could build better relationships between technology and teaching if the school and district administrators provided more support, for example making technology available for all,

providing professional learning opportunities, and allowing time for practice before doing.

Participant verbal responses to IQ11 described how the school and district funding prevents the move forward when supporting educators build better relationships with technology and teaching. Participants' verbal data revealed that 100% of administrators agreed state and federal funding does have an impact on the type of supports and services educators receive. School and district funding varies from year to year, which makes it hard to provide all teachers with professional learning opportunities. Budgetary issues make it difficult for all educators to receive the same amount of professional development, and teachers who do receive professional development learning opportunities do not always share that information accurately.

Participant verbal responses to IQ12 described the benefits of technology professional development for educators. Participants' verbal data revealed that 100% of administrators believed the benefits of technology and teaching outweigh the disadvantages.

IQ10: How would the school district move forward to help educators build better relationships with technology and teaching? Representative comments to IQ10 follow. Participant PJ responded: "The school district needs to move forward to help educators build better relationships with technology by making the technology available to everyone at the same time." Participant PK replied, "Just like learning a new dance, some people will get it the first time they see it, others need to practice a few times, and still others need to practice a lot." Participant PL responded," I think that school districts

need to provide professional development using technology and then also set clear expectations with the teachers."

IQ11: How does school and district funding affect technology professional learning opportunities for educators? Responses to IQ11 include the following. Participant PJ said, "School district funding is limited due to the new NYCDOE structure; often PD is offered to a few and the hope is that those selected teachers share new knowledge and understanding with staff members at their school." Participant PK stated,

> Budget affects the way professional development is delivered in the school and district. Usually, the principal will choose a few teachers to attend yearly professional development and those teachers are the ones to turnkey new information. If the turnkey approach is the only approach available (due to budgetary constraints) then every effort should be made to ensure that those doing the turn keying be as proficient as possible.

Participant PL remarked, "School and district funding affect all professional learning opportunities for education. Funding is the biggest hurdle to overcome for any school. We rely on local politicians and grant funding to get our technology support."

IQ12: How would you describe the benefits of technology and teaching professional learning opportunities for teachers? Replies to IQ12 include the following. Participant PJ stated, "Teachers can be in immediate contact with parents and students through technology." Participant PK said, "Teachers can share ideas and lesson plans with each other. Teachers can create drop boxes with units and lessons that can be

shared." Participant PL remarked, "I think technology is instrumental in teaching the 21st-century students. Many students have been using technology since they were born, so it keeps them motivated and engaged to learn. Technology also helps connect real world into instruction."

Table 5 provides a thematic summary from nine classroom educators (PA-PI) and three administrators (PJ-PL) verbal responses to IQ1 through IQ12. From that data, themes were developed and addressed. The thematic data in Table 5 reveal that most of the educators use some type of technology to improve teaching and learning. Furthermore, 100% of classroom educators at the school believe that technology does improve the learning environment for teachers and students. Also, 100% of classroom educators agreed that more professional learning opportunities and training is necessary if technology relationships are to be maintained. Most importantly, administrators were in agreement with classroom educators on the issues of providing classroom educators with more professional development and mentoring support if the school was to move forward with the use and acceptance of technology to enhance student success. The thematic data from Table 5 revealed that both classroom educators and administrators at the school were concerned about the lack of professional learning and expressed concern about the supports and services needed. Thematic data revealed that ongoing professional development is important and it should be implemented to help classroom educators strengthen those relationships between technology and teaching in the school.

Table 5

Technology Relationships and Administrative Support and Services

Questions	Participant Comments
Use and acceptance of technology tool. (IQ 1, 2, 3)	Smartboards, computer, could drive, laptops, desktops, CD players, iPads, educational apps, websites, projectors, radios, Promethean boards, tablets
Use of enhanced technology improves teaching and learning and increases student success. (IQ 4, 5)	Yes – PA, PB, PC, PD, PE, PF, PG, PI Maybe – PH
Administrative supports and services to build better relationships with technology. (IQ 6, 7, 8)	Monthly workshops. Provide current PDs and time to use new technologies. Weekly PDs. Paid after-school PDs. PDs to help increase the use of technology in the everyday classroom. Onsite and offsite PDs, ongoing PDs. The school should provide much more support and resources to all educators so that we are all on the same page. Provide more updated technology devices in the classroom. PD sessions should be designed to help classroom educators plan and work together so that they can learn by doing. Teacher also need an opportunity for grade discussion and meetings to walk about how and when to use technology. Have a checklist where administrators can see what we need a little more support with. Use technology tailored lesson according to the population of students. Colleagues who are experts come into the classroom to help educators who need help. Design technology lessons appropriate for the population of educators.
Administrative supports and services. (GQ 9, 10, 11, 12)	Make it much easier for everyone to share in the learning experience together rather than a few teachers scattered throughout the building here and there. The districts need to have initiatives that will offer incentives for schools that want to move toward a technology friendly culture. Schools should have standing committee or mentors in each school building in the district that trains the entire school and is able to provide support in the classroom. A great portion of the funding at the district level should go towards technology plans and programs. Technology is vital and instrumental in the 21st century. Teachers need to support a population of students who were born into a technology-driven society if they want to keep all learners motivated and engaged to learn. School districts need to provide professional development using technology with a set of clear expectations of that technology.

Following are comments that address the study interview questions (IQ1 through IQ12) from 12 participants (PA-PL) related to Table 5. Participant PA stated that she feels

"confident but would like more training." Participant PB stated, "We need more professional development opportunities and time to see more demonstration." Participant PC replied, "Administrators can help by promoting a (STEM) education to help teachers and learners connect real world experiences in the classroom." Participant PD said, "School administrators can give professional development to help increase the use of technology in the everyday classroom." Participant PE stated, "I am not comfortable yet, but I'm eager to get one, administrators need to provide onsite and offsite technology support, so that all teachers are equipped to use classroom technology." Participant PF agreed that ongoing professional development would make teachers more comfortable with integrating technology. Participant PG believed that administrative can support educators by having ongoing professional development courses that help educators relate to students in the 21st century. Participant PH believes that school administrators can support educators by having experts in the field of technology come into the classroom to help. Participant PI believes that if administrators are fluent with technology, they will be able to support classroom educators. Participant PK agreed that if the school or district makes technology and teaching experiences easier for everyone to share in the learning experience together, the school cultural can move toward great academic changes together. Participant PL agreed that the school districts need to provide professional development using technology and then also set clear expectations with the teachers; although, they may not be completely proficient in using the technology.

Findings by Interview Questions and Research Questions

During the initial stages of my research, I encountered teacher interview responses that echoed the literature I reviewed earlier while writing the proposal (Luther, 2015; Pandya & Aukerman, 2014; Tomlinson, 2017). Three research questions and 12 interview questions for this study were guided by the conceptual framework of Venkatesh et al. (2012). The interview questions were used to gain the perspectives from 12 educators. As confirmed by the conceptual framework that guided the study, Venkatesh et al. (2012) mentioned the research questions must be familiar and understood by participants based on their current experiences and relationships with technology. Interview questions designed for this study were used to gather information's from 12 educators in one school district to gain their perspective about teaching and technology relationships to enhance student success. The findings from 12 interview questions with participants during face-to- face interviews confirmed that more professional development was needed to help the school as a whole build better relationships with teaching and technology. The findings based on the study research questions helped me set and ground the understanding of elementary school educator's relationships, behaviors, and the perceived advantages that technology integrated within the literacy classroom may have on teaching and learning. All of these findings are built around by Venkatesh et al.'s 2003 and 2012 models that consider the relationship between the integration (acceptance and use) of technology-enhanced lessons and the experiences of educators in the process.

Instruments used to collect participants' responses to the questions were used in the following order (a) the chosen instrumentations allowed better understanding; (b) the chosen instrumentation allowed current experiences; (c) the instrumentation selected provided control over the flow of the questions; (d) the chosen instrumentation was fair and appropriate for collecting participant data with quantity and validity (Creswell 2013b). As confirmed by Venkatesh et al.'s 2012 theory and other research (Howley et al., 2011; Sarkar et al.,2017), the overall results can serve as a starting point in one school district, as well as help other schools in the district improve existing educational practice to enhance student success.

The interview questions helped the nine participants (PA-PI) openly discuss and express true feelings about their relationships between technology and teaching relationships and determine what supports and services were needed from administrators to help build stronger relationships with technology and teaching. At times during the interview process, participants showed anxiety, relief, and frustration as they expressed the need for more support from school administrators. Participant responses to IQ1, IQ2, and IQ3 revealed that most all classroom educators at the school under study have relationships between technology and teaching in the classroom. Participant responses to interview questions revealed that 100% of classroom educators believe that technology does improve the classroom learning environment for teachers and students. Participant responses to IQ4, IQ5, and IQ6 revealed how those existing relationships between technology and teaching increase student success. Participant responses revealed that 100% of classroom educators believe that technology can enhance student academic

success. Participant responses to IQ6, IQ7, and IQ8 revealed the alignment of the school technology program with literacy instruction needs improvement. Participant responses to interview questions revealed that the school has recently introduced staff to a new online reading program called I-Ready that is used by more than 50% of classroom educators at the school. Participants' responses revealed that administrators can help them maintain strong relationships with teaching and technology by providing onsite professional development opportunities, workshops, and training for all classroom educators. Participant responses revealed the supports and services are not a want but a need in order to help maintain relationships between technology and teaching in the literacy classroom. Participants' responses to interview questions revealed that 100% of classroom educators feel that administrators can support them by providing ongoing technology training, workshops, and professional training that would be meaningful. During additional interviews with school and district administrators, participant (PJ-PL) responses to IQ9, IQ10, IQ11, and IQ12, revealed perceived relationships classroom educators had with technology in the classroom. Participants' responses to interview questions revealed that administrators had various ways to describe the overall acceptance and use of technology by classroom educators. Most important, two of the three administrators understood that not all teachers were introduced to technology at the same time, which interfered with how technology was used and integrated in the literacy classroom. Furthermore, the guided research question helped administrators understand the educators' perceptions of the administrative and district support that help maintain

instructional relationships with teaching and technology to enhance instructional practices.

RQ1: What are educators' perceptions of how educators can build better relationships with technology and teaching to enhance student academic success?

Theme 1 and Theme 2 revealed the school principal's own level of technological expertise impacts the ordering and implementation of new technology devices in the literacy classroom. The school district needs to move forward to help educators build better relationships with technology by exposing educators to a variety of technology and making the technology available to everyone at the same time. Data revealed that the school culture has to embrace technology and teaching relationships to some degree, but this needs to be a top down process and it should be communicated to the students that technology is an important part of all school curriculum. Although administrators provide new software, educators need additional time during and after school to explore the new technology devices and software programs. Additional professional development opportunities are needed for all classroom educators to become effective with technology in the literacy classroom. Weekly professional development in addition to paid after-school professional development is needed to help educators build better relationships with technology and teaching. Provided professional development must be tailored to the school's plans and programs. The school should have a checklist completed by classroom educators, so administrators know what technology support is needed in the school. Participants expressed the need for administrators to provide professional development in addition to putting more updated technology devices in the classroom. Through research

question one, classroom educators revealed that more onsite and offsite training would be required to help all educators obtain an equal amount of knowledge and experience when using technology in the literacy classroom.

RQ2: What are educators' perceptions of administrative and district supports and services that sustain instructional relationships with technology and teaching to enhance instructional practices? During the overall interviews, the administrators' tone seemed confident, sure, and accepting of educators demands and needs. Two out of the three administrators interviewed believed that ongoing professional development would make teachers more comfortable with integrating technology. Theme 3 revealed in the analysis of verbal data uncovered that there is a need to for different points of entry into professional development based on an educator's background knowledge. The school's cultural environment impacted how technology was used.

Evidence of Quality Data, Findings, and Discrepant Cases

This study became a preventive measure that also rendered rapport and respect between the researcher and participants (Creswell, 2013). The trustworthiness, credibility, and dependability of qualitative case studies can be described as how the researcher used the data to draw the satisfactory conclusion about a problem (Creswell, 2012). I employed member checking to ensure that I did not take participants responses to the interview questions out of context. I placed data on coded data charts and tables created by me to assure themes and patterns were organized and recognizable. To assure evidence of quality, I employed data triangulation, which entails gathering data through

several sampling strategies so that slices of data at different times and in different social situations, as well as on a variety of people, are gathered (Creswell 2012).

The peer debriefer examined data analysis for logical development of coding themes, recommendations, and the results. Once the examination was completed, we met to allow him to address any concerns or questions. The peer debriefer chosen to assist me in this study is an expert in the field of technology integration and curriculum, with more than 25 years of experience. He spent 15 years as a classroom teacher and about 10 years as a technology curriculum specialist within the urban school district. He also has more than 10 years' experience as an editor for local publications. To protect the confidentiality of all participant data, the peer debriefer was required to sign a confidentiality agreement (see Appendix E). The peer debriefer did not have access to the participants' names or identities.

Once the debriefing was completed, participants received a copy of the preliminary findings to member check to add to the validly of the results. Participants had an opportunity to discuss the findings with me and adjust any of the miscommunication from their own data. Once member checking was complete, I used the findings to write a final report in a Microsoft Office Word program. I sent a copy of the findings, without any identifying information, via email to all participants and the school's head principal. I used the findings from this study to produce a professional development plan for one school in an urban school district to initiate positive social change and improve classroom instruction for classroom educators and academic success for all students.

Creswell (2012) believed that qualitative research is based on what the researcher considers to be valuable based on how individual views inspire the types of questions asked and responses obtained (Creswell, 2013). The data were credible because I obtained real experiences and responses from multiple participants in one learning setting who had previous knowledge and experience with technology integration. Triangulation was used to ask the same study question for each participant and having participants review the data collected and their interpretations. Triangulation provided an in-depth examination of the data that resulted in a closer understanding from different viewpoints. A peer debriefed was used to verify the interpretations of the findings.

Agreeing to Walden University policy, all data will be kept in a metal lock box at my home and permanently destroyed after five years.

Summary of Findings

The findings in Section 2 revealed that teaching and technology relationships in one elementary school were apparent, but needed strengthening. The study had two research questions and 12 interview questions (see Appendix B). I used a colored coded chart to look for themes and patterns to produce a description of the setting and developed a narrative of verbal response. This helped me interpret the meaning of the findings to address implementation of UTAUT framework to understand kindergarten through fifth grade educators' acceptance and integration of technology with literacy to enhance student success. I also examined the supports and services provided by administrators in an effort to help educators maintain relationships with technology and

teaching. I placed those themes and patterns into a data table created by me in a Microsoft Office Word document.

Of the 12 participants selected for the study, most where in the age range of 31 to 50 years. More female educators were willing to discuss the relationships with technology and wanted additional support, as opposed to male educators at the school. Although more than 90% of classroom educators at the school were already using the technology in the literacy classroom, they were not using it often. Participants believed that ongoing professional development provided by school and district administrators could help all teachers maintain relationships with teaching and technology in the classroom. In addition, providing monthly workshops by district administrators would be ideal in helping educators in the district develop and build stronger relationships with technology and teaching. According to the findings, once educators receive adequate professional development, they begin to feel comfortable and may use more technology in the classroom to improve teaching and learning.

Classroom educators used the basic technology devices and software programs in the literacy classroom, but expressed concern that more training and professional learning opportunities were needed to help build stronger relationships with technology. School and district administrators in one school in an urban school district determined that the classroom educator was using technology, but could use further guidance and help by school and district administrators to increase the use of current and new technologies. The administrators themselves need to be comfortable with technology and believe in technology in order to encourage their educators to embrace it and build their confidence.

Although, professional development workshops have been shown to be necessary in one school, administrators must have a clear understanding of what educators need before support will be provided. It was evident in this study that administrative support through ongoing professional development courses can help educators relate to students learning success in the 21st century.

The guided research question – build relationships between technology and teaching – suggestions and comments are as follows:

- Monthly workshops
- Often, professional development is not geared toward students
- Provide current professional development and time to use new technology
- Weekly and paid after-school professional development
- Professional development to help increase the use of technology in the everyday classroom
- Onsite and offsite professional development
- Tailored professional development for each school
- Technology mentor to collaborate with the classroom instructor
- School and district administrators must be comfortable and fluent with technology

The related research question – administrative district supports and services – suggestions and comments are as follows:

- Making the technology and its training and support more readily available in a uniform manner

- The move toward a more tech savvy school is not just a teacher training issue; it is a culture issue
- Provide ongoing technology professional learning opportunities for educators
- Set clear expectations and guidelines for teachers
- Provide equal amount of training to all educators

This investigation at one elementary school with 12 participants has given me an opportunity to look more closely at the relationships educators had with technology and teaching to address the guided and related research questions: What are educators' perceptions of how educators can build better relationships with technology and teaching to enhance student academic success? What are educators' perceptions of administrative and district supports and services that sustain instructional relationships with technology and teaching to enhance instructional practices?

Participant responses clearly addressed the guided research question and the related research question, as school and district educators and administrators gave adequate responses on the perceptions about technology and teaching relationships in one elementary school. Since the urban school district does not have a mandated technology program for its 29 schools, it is at the discretion of each school principal to implement technology into the school curriculum and instruction according to their own knowledge, experience, and acceptance of technology (PC). Educators need additional time to explore new technology devices and software programs to become effective. It was clearly stated that educators needed more professional development opportunities and time to see more in-house demonstration (PB). Educators were not just concerned with

professional development, but expressed a need for current and updated professional development and time to use new technologies (PA). Educators expressed the need to have an equal opportunity to build relationships with technology through provided professional learning for all (PB). If educators are going to teach in the 21st century, they need equal opportunities to build strong relationships with technology in the classroom. Professional development should be provided and available for all educators. Ongoing and offsite professional development would give all educators a chance to strengthen existing relationships with technology (PE).

Providing school administrators with an ongoing checklist to help with the production of meaningful professional development was one suggestion (PF). Tailored professional development is an important part to the learning organization's annual goals and expectations (PG). Schools should have technology mentors work closely with classroom educators (PH). Participant PI added that administrators should be fluent with technology in order to support educators. In response to educators needs and demands, administrators expressed the need to provide that support by (a) making technology, training, and support more readily available in a uniform manner; (b) moving toward a more tech savvy school is not just a teacher training issue, it is a culture issue; and (c) providing ongoing technological professional learning opportunities for educators (PJ, PK, PL). As mentioned in an interview with the district administrator, school and district funding affects technological professional development learning opportunities for educators. Funding is the biggest hurdle to overcome; most of the technology used in public school systems comes from grants and relies on local politicians and grant funding

to get technology. The thematic data was well aligned with the conceptual framework. These themes are sociocultural learning practices to student success.

Throughout the interviews, all participants were cooperative and respectful of study guidelines and procedures. All participants arrived on time during their scheduled interview. At any time during the interview process, if I had encountered any issues with participants, I would have filled out an adverse event reporting form, which can be found on the Walden Research Center website. I would have followed-up with my chair in one week to assure that the issue had been resolved. I would have waited for further instructions before I continued with the investigation. Since there were no adverse issues, I took no actions.

Conclusion

In Section 3, I present the proposed project for this study (see Appendix A), which will consist of a 3-day professional development to help teachers build stronger relationships with technology and teaching in one school community. This technology professional development opportunity provides educators with updated articles and journals form U.S. Department of Education about the benefits professional development has on teaching practices in school nationwide. In addition, educators are provided an opportunity to collaborate and share views and opinions about technology and teaching. At the conclusion of the 3-day professional development, I will provide educators with updated materials and articles and give them an opportunity to design one technology-based lesson to use in the classroom. The provided 3-day session can help teachers acquire innovative knowledge and understanding on the impact of technology and

teaching relationships in the educational environment. Section 2 provided a detailed description of the methodology and finding for the current study.

Section 3: The Project

Introduction

The professional development project I chose for this study was a 3-day technology opportunity for classroom teachers and administrators in one school in an urban school district (see Appendix A) based on my study findings and an updated literature review. In Section 3, I discuss the important point that frames how this research embraces educators as adult learners and reflects on viewpoints on how technology and teaching can enhance learning as a possible way to examine faculty learning and change in educational technology instruction (Schols, 2012). The 15-hours of professional development will be conducted over the course of three days, each day consisting of one 5-hour session, which includes breaks. My project study is designed to support teachers with the integration of technology with literacy and to provide for ongoing professional development and collaboration by teacher participation in a professional learning community. The project will consist of three modules, with the primary focus on technology and ongoing learning opportunities. Each 5-hour session will be provided at one school during instructional days when there are no students in the building. During the 3-day professional development sessions, I will provide educators with Power Point presentations and current articles and journals on the topic; engage the group in activities, collaboration, and sharing; and complete pre- and post-project surveys to establish the effectiveness of each PD session.

The first module will be delivered on September 7, 2018. It will involve the introduction of the building blocks to professional learning opportunities, with a collection of non-fiction articles for close reading. The goal of my study was to help teachers and administrators work together to prepare technology-driven lessons. The second module will be delivered on October 7, 2018. It allows for the collection of common core technology learning expectations, the school's mission statement, and a selection of technology and literacy articles and strategies to be used by all teachers. This selection of specific articles, strategies, and clear guidelines should alleviate teacher confusion and ensure that teachers do not become overwhelmed in making decisions as to how to integrate technology with literacy instruction. The goal is to facilitate consistent use of technology in the class and to reinforce expectations across the core content areas to promote continuity, promote a sense of community among teachers, and reinforce technology expectations for students. The final module of my project on November 7, 2018 is to help educators design a technology/project-based activity to be used with students to support the common core technology learning expectations and to address the teachers feeling overwhelmed when using technology-based lessons to provide a vehicle to communicate with technology specialists, administrators, and colleagues.

Purpose

My professional development project was developed to provide ongoing technology professional development learning opportunities to address teachers' feelings of frustrations and to provide a vehicle to communicate with technology specialists, administrators, and colleagues. Paprzycki et al. (2017) found that the optimum type of

professional development opportunities allows teachers professional growth through collaboration with other adults. Furthermore, this professional development project is guided by research-based online articles, activities, and educational websites to support teacher technology awareness. Finally, the efforts of this professional development plan will result in the formation of a professional development opportunity beginning with the school's kindergarten through fifth grade teachers. Becuwe, Tondeur, Pareja Roblin, Thys, and Castelein (2016) believed that the reality of professional development opportunities helps shape the school's culture. This belief will be shown in the success of my project.

Intended Audience

My professional development project has multiple intended audiences. The initial audience will be the school administrators, technology specialists, and district curriculum specialist. I will present a PowerPoint outlining the research study findings and next steps for approval.

Rationale

A professional development is a learning opportunity that addresses a certain topic to help individuals maintain educational credentials in a professional environmental setting, such as a school, a building, or a school district (Barrett-Tatum, 2015). Educational organizations have used professional development opportunities to help enhance existing academic curriculum instruction and assessment (Deal & Peterson, 2016). With this knowledge, I determined that a 3-day professional development opportunity would address the problem kindergarten through fifth grade teachers have in

accepting and using technology to enhance literacy teaching and learning. In this investigation, I examined technology and teaching relationships in one elementary school in an urban school district. The data collected provided information that supported the existing relationships educators had with technology and revealed any gaps inside the literacy classroom.

The collection of data and analysis during interviews confirmed that 100% of classroom educators used basic technology devices (laptops, desktops, and smart boards) in the literacy classroom. All classroom educators in my study were concerned that administrators at the school under study did not provide enough time or materials to help with the manipulation of old and new technology devices nor did the professional development provide enough information on how teachers could link technology with literacy instruction. The classroom educators in my study also believed that not all professional development focused on technology integration, and even though they were given a choice about which professional development opportunities were needed for the school, consideration about what teachers needed to effectively integrate technology with literacy instruction was not considered by administrators. During the additional interviews, one administrator was familiar with the overall acceptance and use of technology by classroom educators. When asked the question about those existing relationships, two out of three administrators said how educators stored classroom lessons (I-cloud, websites, and computer hard drive), but did not know how technology was used to enhance learning. Both school and district administrators confirmed that educators at the school under study struggled with technology-enhanced literacy pedagogy.

Administrators believed that the shift toward providing classroom educators professional development would help support ongoing technology and teaching relationships. Equal amount of training at the same pace for all educators was necessary. During the face-to face interviews, both educators and administrators felt that professional development opportunities would be beneficial for the school community of teachers and learners.

For this reason, I selected a professional development opportunity, since most classroom educators interviewed at one school in the district under study expressed the need for more support and services by administrators to help strengthen existing relationships with technology in the classroom. Furthermore, current researchers emphasized that literacy instruction in elementary grades should move away from conventional practices and incorporate advancement in technology education to provide a strong, complex learning environment were learning occurs (Barrett-Tatum, 2015). A professional development opportunity will allow the participating school to maintain educational credentials in a professional community and will help enhance existing relationships between technology and teaching in the classroom. The project will include an examination and dialogue of recent professional development opportunities adopted by the State Department of Education. The educational articles and journals I reviewed highlighted the benefit of professional development opportunities in other school districts. I selected a professional development opportunity because it satisfies the local problem kindergarten through fifth grade teachers have in accepting and using technology to enhance literacy teaching and learning.

Review of the Literature

The question that guided the research project was: How do school educators perceive technology professional development opportunity as a vehicle for addressing their professional development needs? To address this question, I engaged 12 practicing school educators in one elementary school district in a state in North America in semi-structured interviews. I conducted this review because data analysis from 12 interviews revealed that educators felt technology professional development opportunities at the school were limited and were not designed to support the integration of technology in the literacy classroom. The analysis also revealed that administrators had limited understanding and knowledge about how classroom educators in kindergarten through fifth felt about the accepted use of technology in the classroom. I will focus on professional development opportunities to support future growth and performance with technology and teaching. Therefore, the literature review focused on how professional development opportunities for educators with implemented technology may lead to improved student success in school communities.

Using the same databases previously used, the following search terms were used: *technology professional development, teacher teams*, *communities of learning, collaboration between teachers and administrators*, *school leadership teams, teachers and principal relationship, professional development opportunity for teachers,* and *professional development advantages in elementary school.*

Professional Learning Communities: Essential for Shaping School Culture

Professional learning communities depend on the members of a learning organization. Researchers have advised that teacher design teams should be provided as a strategy for professional development based on the needs and demands of each learning community (Becuwe et al., 2016). A school learning community should be shaped according to the school's cultural patterns and themes (Schols, 2012). Members within the learning community are responsible for developing professional development opportunities that serve as a direct reflection of the learning community's educational strengths and weakness (Bradley, Crawford, & Dahill-Brown, 2015). I incorporated the information from these authors into the proposed professional development project for this study.

Before developing a plan for educators, themes and patterns must be evident within the learning community under study. The development of productive learning opportunities in any learning community does not depend on the professional development opportunity, but on who designs it (Bradley et al., 2015). The person who designs the professional development opportunity should have a clear understanding about how that learning opportunity will shape the school cultural (Schols, 2012). Deal and Peterson (2016) discovered that when trying to shape the learning community, the professional development opportunities should lead to productive discussions and concerns among educators and administrators. Deal and Peterson's findings revealed that educators and administrators within the school collaborated regularly to determine the school's next steps, which led to future productive professional learning. Shaping school

culture depends on the type of professional development opportunity educators require (Becuwe et al., 2016; Bradley et al., 2015; Schols, 2012).

Reality of Professional Development for Teachers

The reality of professional development is that it should shape the school's culture (Becuwe et al., 2016), which is supported by the study site's Department of Education. Since 2015, the Department of Education has mandated that all educators in public school systems receive 72 hours of professional development sessions each school year. Mandated professional development does support clear educational visons and goals set by school and district leaders (Parsons, Vaughn, Malloy, & Pierczynski, 2017).

Parsons et al. (2017) examined nine first year classroom educators from one school and found that the stability and influence of educators' views impacted teachers' daily educational decisions. Vaughn and Faircloth (2013) indicated that the reality of professional development for teachers did help broaden educators' educational views, helping them reflect on what was needed to design instruction that meets the direct needs of all students. Although their findings were consistent with Paprzycki et al.'s (2017) findings, Vaughn and Faircloth understood first hand that around the world, educators are faced with many challenges, as they work to individualize classroom instruction to meet the educational demands of students.

Professional Development Provided by the School District

In addition to the mandated 72 hours professional development provided by the school district in shaping school culture, educators who hold a professional certification or initial certification must complete an additional 100 hours every five school years in

order to keep teaching in public school systems. The NYC Department of Education (2016) recognized the importance of professional development provided by the school district. Educators are able to obtain professional development hours in several ways. Department of Education provides free professional development after school and on weekends, educators can choose to take college course credits at an accredited school determined by the Department of Education, or educators can use some of the in-school professional development provided by the school district (NYC Department of Education, 2016).

Researchers agree that mandated professional development provided by the school district is ideal in shaping the school (Capraro et al., 2016). Researchers have also argued in recent studies that district-approved professional development is not always tailored for each school community (Baker, 2017). Each study confirmed that the effects of district professional development opportunities for teachers did have an overall impact on teaching and learning outcomes, depending on the quality of professional development teachers received (Baker, 2017; Capraro et al., 2016). The results indicated that high-quality, ongoing teacher professional development typically had significant positive effects on teaching practices and student outcomes.

Professional development provided by school districts in elementary school is an essential part of supporting professional growth in the learning organization (Paprzycki et al., 2017). Paprzycki et al. (2017) found that professional development provided to educators by the school district helped educators clearly identify educational next steps, what needed to be taught, how it should be taught, and what steps needed to be taken in

the process, and educators were better able to adapt to their individual classroom environment with ease and confidence. Professional development provided by the school district is necessary and can lead to increased educational growth for both educators and students (Baker, 2017; Capraro et al., 2016; Paprzycki et al., 2017).

Technology Professional Development

According to Darling-Hammond, Zielezinski, and Goldman (2014), approximately 3% of educators in high-poverty schools acknowledged that students do not have access to technology tools. The study confirmed that, "More than 70 percent of public K–5th schools do not have sufficient broadband to allow most of their students to engage in digital learning activities" (Darling et al., 2014, p. 3). Gamrat, Zimmerman, Dudek, and Peck (2014) discovered that effective technology professional development for educators should be designed to meet the goals of the school culture it is meant to serve. Gamrat et al. confirmed that when educators are provided multiple ways to obtain professional learning opportunities, those opportunities provided support for professional growth for all stakeholders. Technology professional development should be provided in a "local setting specific, adaptive to various teaching philosophies and pedagogies, and provide flexibility" (Gamrat et al., 2014, p. 37).

Schols (2012) argued that educator technology professional development must be customized by school demands and needs. Not all educators have the same experience, knowledge, and motivation to manipulate technology in the classroom (Gamrat et al, 2014; Schols, 2012). Good professional development should extend beyond the workplace (e.g., online and at the site), according to Gordon (2016). While this may be

true, the U.S. Department of Education mandated in the ESSA Act (2015) emphasis on technology integration in all areas of K-5th education. Davies and West (2014) confirmed that professional development in technology for teachers should incorporate three component parts, which include software usage for the classroom, sample lessons, and projects for instruction and technology-based educational reform efforts. Davies and West's models did show that educators who adapted the models into practice demonstrated stronger relationships between technology and teaching in the literacy classroom through "(a) developing technological skills, (b) increasing support through collaborative environments, and (c) providing increased mentoring" (p. 37).

Kumar and Daniel (2016) gathered information supporting that when schools provide professional development opportunities that meet the school community's individual needs and is grade-level appropriate, educators' experiences with professional development opportunities through technologies had the ability to make teaching and learning more motivating. Teachers who received daily training and preparation were more productive when integrating technology. On the other hand, teachers' lack of technology professional development opportunities led to the unsuccessful integration of technology in the classroom (Kumar & Daniel, 2016). Becuwe et al. (2016) confirmed that learning communities that create a stronger technology-driven school environment help educators build upon existing educational views and opinions. Hubbard (2013) found that educators who were more comfortable with technology in the classroom were involved with continued professional development courses and workshops. When educators feel confident with the use and acceptance of technology, they are more likely

to integrate technology into daily classroom practices (Blanchard, LePrevost, Tolin, & Gutierrez, 2016; Shea, Mouza, & Drewes, 2016).

Teacher Design Teams for Professional Development

Becuwe et al. (2016) explored the role and importance of the facilitator in teacher design teams and found that teachers are more likely to adapt and use new programs into instruction if they have a clear definition and knowledge about how integrate it effectively. Lefoe et al. (2013) agreed that school districts that provide more team teaching professional development for educators are learning communities that foster change and school improvement. LeFoe et al. confirmed that effective educational leadership and policy allows teachers the ability to grow as professionals and change instructional practices. Gast, Schildkamp, and van der Veen (2017) found, "Working in teams can be an effective method for professional development team members to bring different experiences to the table, which can be beneficial for the effectiveness of a team" (p. 737). Educators who are involved in a team collaboration community felt confident and obtained understanding and knowledge from other educators (Green, Hibbins, Houghton, & Ruutz, 2013). Teacher design teams for professional development have proven beneficial for learning communities (Gast et al., 2017; Green et al., 2013). Lefoe et al. argued that through increasing the development of effective school practice around the world, learning communities could foster teaching teams to provide supportive contexts in an effort to help educators enhance their knowledge of teaching practice.

Supports and Services to Influence Technology Professional Development

Although many authors might agree that technology professional development has a positive impact on the school community, Oriji and Amadi (2016) indicated that technology had little or no impact if the teachers were not provided adequate training, as some teachers are unfriendly with the technological innovations. With the many technology shifts and demands in many learning communities, there is concern as to how we can support technophobic teachers in learning to use technologies that will aid teaching and learning and how do we teach educators the necessary skills they need to succeed in the knowledge-based economy (Oriji & Amadi, 2016; Wieczorek, 2017). These concerns need to be addressed, if educators intend to keep up with the changing times and meet the yearning demands of the next generation of learners. Technology education has been shown to improve teachers' understanding of content and produce positive social change within learning organization (Wang & Hsu, 2013).

Yu and Prince (2016) found that it depends on how productive administrators and school leaders are when providing specific training and professional development for educators. Wang and Hsu (2013) concluded, "Successful integration of educational technology in school systems hinges on school administrators" (p. 1). Before teachers can become technology literate, school administrators must have just as much knowledge and understanding about how to use those same technology devices, if they are going to provide adequate support and services that influence technology integration in schools (Wang & Hsu, 2013; Yu & Prince, 2016).

Professional Development Opportunities

Worldwide, many may argue, technology has replaced the 20th-century way of living. As a result, learning communities' instructional practices continue to change. Teachers align their own convictions for teaching creatively with a clear vision for instructional practices (Paprzycki et al., 2017). Many current studies advise that the amount of technology professional development opportunities educators receive in learning communities must change, also (Yu & Prince, 2016). Researchers discovered that learning communities that support ongoing professional development opportunities with implemented technology components help support the 21st century of teachers and learners (Darling et al., 2014; Paprzycki et al., 2017; Wang & Hsu, 2013). Within this review of the literature, I obtained current issues and descriptions of professional development activities. In contrast, professional development with implemented technology supports an environment of assurance, support, and assistance for educators. Members of the school community who work together to succeed as one embraced new opportunities together (Gray, Kruse, & Tarter, 2017).

English language learners' and low socioeconomic students' reading achievement scores increased when technology was incorporated into the instruction greater than when these students were taught using traditional methodologies (Schechter; Macaruso, Kazakoff, & Brooke, 2015). In the early 1990s, computers were not used in the classroom, but "93 percent of all U.S. public schools had computers with Internet access in the classroom" (National Center for Education Statistics, 2015, p. 1). Educator experience and comfort level with technology in the literacy classroom depends on the

type of professional development they receive (Kazakoff, & Brooke, 2015, 2017; Walker et al., 2012). Researchers have confirmed that one key to improving equity in school communities is for education teams to creative culturally responsive relationships (Gordon, 2016; Jacob, Berger, Hart, & Loeb, 2016).

Project Description

Once data collection process was completed, I reviewed the findings to produce a proposed professional development project for one school in an urban school district. I gave an overview of the doctoral study and data analysis to participating educators and administrators at the school under study. I attached a schedule and agenda (see Appendix A) for the 3-day professional development opportunity. The professional development was inspired from the study findings and will consist of three full days of professional development during instructional days when there are no students in the building. The professional development includes a Power Point presentation on all three days, current articles and journals, hands-on activities, materials, exit slips, and pre- and post-surveys (see Appendix A).

Resources, Supports, Potential Barriers, and Barrier Solutions

Resources for the project include the research from both literature reviews, as it provides background information regarding the local problem, technology and teaching relationships, administrative supports and services, and professional development benefits to classroom educators. I used Walden University as a resource when conducting my literature search. Most importantly, nine classroom educators and three administrators supplied relevant resources that led to the development of the professional development

plan. I received support for this project from many people at Walden University. The primary support came from my committee chair, who provided informative feedback daily. In addition, my second committee member and the URR reviewer also provided helpful feedback and suggestions. Most importantly, the IRB at Walden University provided feedback and recommendations and helped me obtain approval for my study. The support of the school head principal and educators in one school in an urban school district made the data collection process at the school safe and organized. Lastly, the participants were professional, cooperative, and respectful at all times.

Some potential barriers may be that the New York State Department of Education already requires additional professional development to maintain teaching credentials, but they have not mandated that those be in technology. The state requires that teachers learn the basic operations of technology (e.g., use age-appropriate online tools and resources). The formative evaluation of the professional development on how to set up a technology professional development opportunity for teachers will serve to accomplish both functions. The NYC Department of Education (2016) defined formative assessment as "Part of the instructional process. When incorporated into classroom practice, it provides the information needed to adjust teaching and learning while they are happening" (p. 1). According to the NYC Department of Education, "These adjustments help to ensure, students achieve targeted standards based learning goals within a set time frame" (p. 1). Two of the functions set forth in this state are elementary and secondary school K-12 standards, which guide the work of the Education Department at the Center for Higher

Education, are for school teachers and administrators to be held accountable for using technology in schools.

Proposal for Implementation Including Timetable

Once I received approval from Walden University, I collected and analyzed the data and used the findings to design a professional development activity. I set up a timeframe for the 3-day, five hour a day professional development session at the school. The project will consist of a 3-day session during instructional days at one school in an urban school district when there are no students in the building. Each session will contain an agenda for each day, a schedule, times, and locations in late Fall 2018. Each session provides attending participants with updated articles on the topic, hands-on activities, and group sharing and collaboration. I will be in charge of supplying all materials for each session. I will ask a volunteer to assist me with the handouts, materials, and presentations for each professional development session. I will be in charge of collecting beginning and end survey responses. Each survey response will help me determine the effectiveness of each professional development session and provide next steps for future professional developments. Throughout the 3-day professional development opportunity, I will ask 12 participants to share their views on past and present technology use and discuss what is working and what is not working in the classroom. I will record their views on an ongoing chart on each of the three days. I will collect a summative reflection on the last day of the professional development, asking the participants to share their final views on both the strengths and weaknesses of the professional development and recommendations for future professional development.

Twelve educators are the key stakeholders in this project. Each participant serves as an important asset in the professional development sessions, because their opinions and new knowledge can be used to encourage other teachers to use and accept technology in the literacy classroom.

Roles and Responsibilities of Researcher and Others Involved

My role was to create a technology professional development for educators based on the doctoral study's findings and results. In addition, my role is to be present during the 3-day professional development, provide support, and answer questions. I am responsible for choosing one facilitator to lead each session. I am responsible for setting up each session, providing resources, developing the schedule, and collecting all documents, such as beginning and ending participant information and contact information. I will also be present on day three to address any questions and to thank all for attending.

Project Evaluation Plan

The project evaluation plan is both a formative and a summative assessment. As an elementary school teacher, I enjoy this collaboration with school and district educators and I am eager to support the teachers with enhancing instruction. I will provide an exit slip at the end of each session. I will monitor progress by using reflective prompts and open-ended, pre- and post-survey questionnaires. The concluding project outcome will measure educators' past and present use and acceptance with technology in the classroom and provide new learning and understanding. In the end, educators will be able to use that

new learning to enhance teaching and student success in the classroom. I will use a formative assessment approach when examining the effectiveness of the project.

The overall evaluation goal of this project is to provide helpful resources to assist participants with the integration of technology (i.e., as a group who is responsible for designing classroom instruction that can be engaging for all students). In order to determine whether the 3-session professional development has the desired effect, I need to conduct regular follow-up meetings. These evaluations include asking each participant to complete a short pre-survey before the intervention (first day of the professional development) and then emailing the link to this same survey to each teacher after the intervention. I will email a survey link to each participant at the beginning of each semester following the 3-day professional development opportunity for a period of two school years. The survey questions will be aligned to the four goals of the project study, so that the analysis may include data on whether the goals have been achieved (see Appendix A). The regular evaluation within a 2-year period will include a short meeting with participants. The key stakeholders included in the 3-day professional development professional development session are elementary school classroom educators. I will analyze the surveys and provide participants with the findings to help all see if the goals have been met.

Project Implications

The educators in this study are concerned with the lack of professional development received from administrators. In the past, many teachers used technology without support, with no school plan in place. Teachers who were not technology literate

use little or no digital devices in the classroom. When administrators came to observe classroom lessons and saw technology-driven lessons (smart boards, e-readers, laptops) during instructional time, those teachers received higher ratings than those teachers who used traditional teaching methods (textbooks, chalk board, worksheets). Somehow, lack of awareness and support by administrators had an impact on teacher overall rating, which did not seem fair. If school administrators are going to enforce the CCSS technology expectations and foster a school community where each teacher has an opportunity to improve teaching practices, then all teachers need adequate technology professional development opportunities to be accurately rated. The 3-day professional development will provide school and district administrators with current information regarding educators' perspectives about technology and teaching in the classroom. The 3-day professional development will also provide recommendations and next steps. In addition, the professional development will provide educators with updated literature, materials, and resources to help build better relationships between technology and teaching in the classroom.

Local Stakeholders

An essential reason for the project is to bond teachers' experiences and comfort levels using technology with their readiness and capability to integrate technology into teaching and learning (Walker et al., 2012)) set forth to increase and accept technology to improve teaching and learning. Administrators and teachers in one school in this district all agreed that their professional development was a need and would be beneficial for all stakeholders. The project for this study is professional development on the four pillars or

the foundation of professional development opportunities. The results also revealed that there was weak leadership among the school administrators and teachers in the school under study.

Larger Content

English language learners and low socioeconomic students demonstrated increased reading achievement scores when technology was incorporated into the instruction compared to those who were taught using traditional methodologies (Walker et al., 2012). Helping educators understand the benefits of technology integration in the classroom will lead to overall better teaching practices that can foster improved learning opportunities for all students. A description of one who accepts and uses technology for the academic benefit of all students is described by Walker et al., (2012) as,

An individual who tries,

An individual who wants to learn how,

An individual who strives for academic success for all students,

An individual who looks to achieve yearly goals, and

An individual who designs engaging and motivating lessons for all students.

Conclusion

The 3-day professional development for this project addresses the local problem of technology and teaching relationships in one elementary school system to improve student success. With this professional development project, I will address the study's data collection and results from 12 participate in one school in an urban school district. Section 4 will be a sequence of reflections on the strengths and boundaries of the project

and my particular analysis as a scholar, practitioner, and project designer. I will provide recommendations and next steps to how this problem might have been approached differently. Lastly, there will be an analysis section on scholarship and project development. Section 4 will discuss what I have learned as a project developer and provide an analysis of myself as a scholar and practitioner.

Section 4: Reflections and Conclusions

Introduction

The purpose of this qualitative case study was to determine the relationships educators in the target school had with technology and teaching and to learn what supports and services administrators could provide to help classroom educators improve those relationships to enhance student success at the school. I examined the problem through the views of classroom educators and school administrators in the one elementary school in the XYZ school district. Section 4 covers project strengths, project limitations and remediation, description of process learned in research, recommendations for alternative approaches, leadership and positive social change, description of processes learned in project developer, analysis of self as a scholar, analysis of self as a practitioner, and analysis of self as a project developer.

Project Strengths

The strengths of the project are based in the project design, which was built on current research (Brunsell & Horejsi, 2013; Mazur et al., 2015) and supported through data collected from 12 educators in one school district who had experience with technology and teaching. The project's qualitative approach allowed me to collect data and to contextualize it according to the perspectives of each of the participants (Creswell et al., 2012). Furthermore, the data were grounded in the last five years of published literature. The project was designed to address the teachers' needs and concerns, as revealed during the interviews. The project design was supported by current articles, educational journals, and textbooks published within the last five years. Moreover, the

project design fits the conceptual frame work of Venkatesh et al. (2012), which has determined that ongoing technology professional development support educators with the use and acceptance of technology to enhance student success.

While all educators at the school were expected to integrate technology into their literacy instruction, many expressed concerns about how to do it to enhance student success. The project provided a research-based plan to help meet the needs and support classroom teachers in their effort to build better relationships between technology and teaching in the literacy classroom. The intended goal of the project was guided by educators' perspectives about technology and teaching to enhance student success in the urban school in the XYZ school district. The findings were used to design a technology professional development to address the need to increase the use of technology, allowing time for teachers to collaborate and plan technology-driven lessons throughout the year. Teachers will be provided with current technology resource and lesson plans as a guide in the classroom. Consequently, the project will not be a one-time session, but instead will take place three times in a year. As confirmed by current researchers (Baker, 2017; Capraro et al., 2016), the effects of professional development opportunities and the impact it has on teaching and learning outcomes requires sustained professional learning and consistent technology support. Paprzycki et al. (2017) also mentioned that professional learning and development helped educators clearly identify what steps needed to be taken in the process, and educators were better able to adapt to their individual classroom environment with ease and confidence. Overall, the strengths of this project are that it gives administrators insight to the values and perspectives of the

teacher's relationship with technology and teaching relationships to enhance student success. The design of the project was confirmed by Venkatesh et al.'s 2003 and 2012 models that considers the relationship between the integration (acceptance and use) of technology-enhanced lessons and the experiences of educators in the process.

Project Limitations and Remediation

The project has some strengths, but also some limitations. Professional development was viewed as a strength in any learning organization (Baker, 2017; Capraro et al., 2016). But, the conceptual framework that guided the development of the project (Venkatesh et al., 2003; Venkatesh et al., 2012) mentioned that professional development should be meaningful and productive for the population of teacher it intends to serve. One noted weakness of the professional development designed for this study is that it is based only on one elementary school through the lens of nine classroom educators and three administrators. Also, the 3-day professional development will only be useful to those who read the study. Another weakness of the study is that it is limited to one school in the district. Furthermore, in this qualitative study, limitations were my role as a researcher, the sample size of participants, and the geographic location of the school under study. Also, data were collected from a small sample size (Creswell et al., 2012b; Yin 2014). Moreover, limitations are a function of the trustworthiness and the honesty of each participant. It can be possible that at least one participant could have been less than 100% honest. However, as I remembered the research topic and the selection of participants, I concluded that the outcome may have been different with a different selection of participants. A sample selection of participants from a different geographic

or larger school district may have produced different results. Limitations can be a weakness that may affect the outcome of research and is not controlled by the researcher (Creswell, 2013b; Leedy & Ormrod, 2013).

To remediate the limitations, the primary recommendation I suggested was to provide educators with ongoing technology professional development opportunities during and after school. Secondly, it was highly recommended that educators and administrators meet three times a year to reflect on and discuss current concerns about technology relationships. More importantly, I provided a link to help educators determine if the recommended professional development was helping educators build stronger relationships with technology or if the relationships remained the same. I have addressed the limitations identified in this study. The limitations are based on the perception of elementary school educators and administrators in one elementary school in the school district. The limitations identified can be solved by conducting the same research in other elementary and secondary schools within the district.

The project is also limited in that the professional development sessions are intended for people who read the study. School and district administrators can use the information to determine the increased technology and teaching relationship and to share that information with other educators and administrators in the district.

Another solution that addresses the limitations can be that others do not welcome the recommendations. This could be a result of the lack of leadership, as well as limited technology and teaching relationships based on funding and school budget. One way to solve this problem is to present a survey that addresses technology and teaching

relationships in other schools in the district. Identifying if educators in the district have established relationships with technology in the literacy classroom could lead to productive professional development to help them maintain those relationships with technology in the classroom. It should be clear that the intended professional development is not to make changes to existing instructional practices, but to enhance current instructional practices.

Recommendations for Alternative Approaches

I chose a 3-day professional development project because educators expressed the need for more support to help build stronger relationships with technology in the literacy classroom. I could have taken other approaches to shed light on this problem. School administrators could have provided yearly surveys to determine the degree of educator teaching and technology relationships at the start of each school year. I did not use this approach, because in the past, it has been found that people rush through the questions, often times providing answers administrators want to hear. Furthermore, the written proposal and the results could have been used to determine the strengths of technology and teaching relationships, but that would have served a narrow purpose, because educators' relationships may have remained the same. The 3-day professional development provided educators with purpose, goals, and results.

Description of Processes Learned in Research

Throughout the study, I obtained knowledge necessary to develop a project that would meet the needs of one elementary school in the district. Current readings in primary and secondary peer-reviewed articles supplied me with information needed to

develop a strong study. The framework provided the problem at hand on a broader spectrum of my project study.

Most importantly, I obtained understanding and knowledge to determine a local problem that led to the development of the methodology appropriate for the study. I understood how to gain access to participants, while protecting their rights according to the IRB procedures, the process, and the informed consent. I also understood how updated and current sources link relevant information with other sources. This process has taught me how to collect, code, analyze, and organize qualitative data to answer the guided and related research questions that lead to themes and patterns.

I became an expert in putting all the data together to address the local problem. I became a scholar, learning how to provide recommendations, limitations, and strengths related to the local problem. All information achieved was necessary for this project, for my growth as a researcher, and for completing the requirements for graduation from the doctoral program at Walden University.

Leadership and Positive Social Change

I have never really thought of myself as a leader, but after completing the doctoral course, I can now say that my role as a leader has increased. As a person, I now believe that we learn by doing, and student success depends on new understanding and knowledge obtained by educators. As a researcher, I now know how to address a problem, find articles and journals to back up that problem, collect and analyze data, and use data to produce social change in the field of education. This knowledge has made me

stronger as a person, as an educator, and as a leader. I look forward to bringing educators together to make a difference in elementary school systems.

One of Walden's visons is that "Education and social change are fundamental to the provision and maintenance of democratic ideals and principles—especially that of the common good" (Walden University, 2017, p. 15). The project has the power to produce social change within one learning organization. The benefit of this project is that educators may be provided ongoing technology professional development and training onsite and offsite. The school technology department might develop a checklist for educators to complete at the beginning and end of the school year. The checklist may be used to develop meaningful technology professional development. The project's next steps and recommendations may be used by other schools in the district technology department to produce and improve teaching and learning technology relationships in the literacy classroom.

Description of Processes Learned in Project Development

My knowledge as a researcher has grown, as I now understand that the data collected were a key factor in a possible solution to the problem at hand. Before the study, I thought my end project would have been a lesson plan. I based this pre-thought on my expertise as a curriculum specialist. I worked in the school district on curriculum and lesson plan writing, so I felt most comfortable with a lesson plan as a project. However, after data collection, I realized the project needed to be designed according to the findings. The project needed to relate to the themes and patterns that addressed the research questions. It was clear that a hand-written lesson plan would not satisfy the

needs of educators and administrators. Professional development would provide support and hands-on opportunities and would generate additional questions and concerns.

As I read primary, secondary, and government articles on the topic, I realized that most authors provided the reader with a solution to the problem. After discussing the matter with other doctoral students, I discovered that professional development sessions are an area of discussion in many school districts. Through the 3-day professional development session, I was able to make a direct connection to the study findings and provide supports to educators in one learning organization. Most importantly, professional development meant that I would be able to share the study findings with all classroom teachers and school and district administrators without force in hopes that it would produce social change within the school. The outcome of the professional development may inspire the supports and services educators require.

Analysis of Self as a Scholar

When I started the doctoral program at Walden University, I thought I understood the action research process. As an educator for more than 20 years, we are always implementing action research into practice. Working as a team to determine which educational problems needed solving is what educators do daily. As I transitioned through the research process as a doctoral student and completed my study, I now understand and respect the importance of a researcher. I have learned to create guiding questions to address the local problem within one school. I have gained new knowledge and understanding about the local problem through great literature reviews. I understand the difference between primary and secondary articles and online journals. I learned how

to review studies related to my local problem and learned how to obtain data analysis. I learned how to collect, code, and analyze a variety of data. Most importantly, I learned how to take on the role as a scholarly writer, and I have mastered the APA form and style.

Analysis of Self as Practitioner

As a practitioner in education, I have always used current knowledge and experience to grow as an individual. My personal growth as a practitioner became evident, as I completed my study and designed a professional development project to help support classroom educators. I am currently a Grade 1 through Grade 6 elementary school teacher, with a dual certification (special education and general education). As I developed my project, I thought about past professional development that did not serve the school community. I used the collection of data and analysis as the primary sources when developing my project. I knew firsthand that less professional development would have an adverse effect in the end.

Moreover, my project development has helped me as an educator continue to look for information on the topic to help me grow, both inside and outside the classroom. I have grown and am still growing as a researcher, but I am better able to serve my community of educators, where I will continue to make steps toward social changes within. I will continue to look for ways to develop projects that meet the demands of the one learning organization at hand. I can only hope that the recommendations made by me within one learning organization have a ripple effect on others within the school district.

Analysis of Self as Project Developer

At the start of my doctoral study, I paid little attention to the project and focused more on the scholarly writing piece. As I completed my prospectus, I discovered that there would be a final project due. I started exploring information on the Walden Portal and discovered that this project would be bigger than I thought. I began to consult with my committee members and asked many questions about the doctoral study project. I was given feedback that helped me in designing my project. As I developed my project, I realized I was designing something that would support many in the field of education. I knew that I was growing as a person, educator, and researcher. At first, I was going to design a thematic lesson plan for the project, but Venkatesh et al.'s (2012) theory discussed the importance of professional learning opportunities in learning organizations. I understood that providing a thematic lesson plan as my project would not serve the intended purpose.

Reflection on Importance of Work

Technology is rapidly growing nationwide in the world of education. This study addressed this concern on the local level with school and district data from educators and administrators. A current literature review within the last five years has confirmed this growing concern. Furthermore, the importance of the study is the impact it has on teaching and learning in elementary school classrooms. The study data collection informed the types of supports and services needed to enforce changes to current teaching practices in one school. The project developed was inspired by the study findings and provided support, recommendations, and next steps to school administrator. The most

important part about this study is the affirmative change it will have on one learning organization system.

Implications, Applications, and Directions for Further Research

Implications and Applications

The primary purpose for this study was to address the guided research questions: What are educators' perceptions of how educators can build better relationships with technology and teaching to enhance student academic success? What are educators' perceptions of administrative and district supports and services that sustain instructional relationships with technology and teaching to enhance instructional practices? The data analysis provided three themes: (a) understand how educators use and accept technology to improve student success, (b) understand how educators build better relationships for teaching and learning with technology, and (c) determine what administrative supports and services help educators build better relationships with technology.

The implication for this study was a professional development next steps, and I provided recommendations to one elementary school in the XYZ school district. The next steps provided do not overstep any boundaries of the study and are related directly to the findings at one elementary school in the district. I provided primary and secondary recommendations for the school under study: (a) next steps and recommendations to help improve technology and teaching relationships and (b) ongoing technology professional development for kindergarten through fifth grade educators, which was a secondary recommendation. The last recommendation is that school administrators allow classroom educators to complete a technology checklist twice a year to help monitor educators'

needs and demands. The implementation of continued technology professional development provided by school and district administrators will help classroom educators maintain strong relationships with technology and teaching to enhance student success. The results can be shared with other schools in the district. The effect of meaningful educational reform in one school usually affects other schools in that district and produces positive social change overall.

Direction for Future Research

Future research on technology integration in the literacy classroom was completed in one elementary school. The study can be further extended if it is completed at secondary schools in the district. My last recommendation for this study is to do a cross-sectional study on the topic from secondary schools in the district to determine if the outcome will be the same or differ between elementary schools in the district.

Conclusion

Despite the desire to work collaboratively with administrators, school and district funding interfered with the production of professional development opportunities for educators. Researchers emphasized that literacy instruction in elementary grades should move away from conventional practices and incorporate advancement in technology education to provide a strong, complex learning environment were learning occurs (Barrett-Tatum, 2015). Education and social change are necessary to the establishment and maintenance of democratic ideals and principles (Walden University, 2017). Social change within depends on the effectiveness of school administrators and educators. Students' educational success depends on teacher readiness and expertise—teachers'

experiences and comfort levels using technology with their readiness and capability to integrate technology into teaching and learning (Walker et al., 2012). Furthermore, improving equity in school communities is for educators to build supportive, culturally responsive relationships with others (Gordon, 2016; Jacob et al., 2016). Therefore, a fair and equal education is important for all students. This study provided updated information about technology relationships educators have in elementary grades and provided next steps and recommendation to help produce social change within. I designed a professional development opportunity to help educators in one school reflect on existing relationships with technology and gain new understanding to strengthen those relationships within that school. The results can be shared with other schools in the district and, ultimately, produce positive social changes within an entire school district.

References

Andronico, K. (2015). Peer mentoring, coaching, and collaboration. In C. R. McCray & B. S. Cooper (Eds.), *Mentoring with meaning: How educators can be more professional and effective* (pp. 85-112). Lanham, MD: Rowman & Littlefield.

Altuna, J., & Lareki, A. (2015). Analysis of the use of digital technologies in schools that implement different learning theories. *Journal of Educational Computing Research*, *53*(2), 205-227. doi:10.1177/0735633115597869

Attuquayefio, S., & Addo, H. (2014). Review of studies with UTAUT as conceptual framework. *European Scientific Journal, 10*(8), 249-258. Retrieved from https://www.researchgate.net/publication/292134289_REVIEW_OF_STUDIES_WITH_UTAUT_AS_CONCEPTUAL_FRAMEWORK

Baker, M. (2017). Early childhood teachers at the center: A qualitative case study of professional development in an urban district. *Early Childhood Education Journal*, online publication. doi:10.1007/s10643-017-0858-6

Barrett-Tatum, J. (2015). Examining English language arts common core state standards instruction through cultural historical activity theory. *Education Policy Analysis Archives, 23*(63), 1-33. doi:10.14507/epaa.v23.1867

Becuwe, H., Tondeur, J., Pareja Roblin, N., Thys, J., & Castelein, E. (2016). Teacher design teams as a strategy for professional development: The role of the facilitator. *Educational Research and Evaluation, 22*(3-4), 141-154. doi:10.1080/13803611.2016.1247724

Biancarosa, G., & Griffiths, G. G. (2012). Technology tools to support reading in the digital age. *Future of Children, 22*(2) 139-160. doi:10.1353/foc.2012.0014

Birch, A., & Irvine, V. (2009). Preservice teachers' acceptance of ICT integration in the classroom: Applying the UTAUT model. *Educational Media International, 45*(4), 295-315. doi:10.1080/09523980903387506

Blanchard, M. R., LePrevost, C. E., Tolin, A. D., & Gutierrez, K. S. (2016). Investigating technology-enhanced teacher professional development in rural, high-poverty middle schools. *Educational Researcher, 45*(3), 207-220. doi:10.3102/0013189x16644602

Bradley, D., Crawford, E., & Dahill-Brown, S. E. (2015). *Fidelity of implementation in a large-scale, randomized, field trial: Identifying the critical components of values affirmation.* Paper presented at the SREE Spring 2015 Conference, Washington, DC. Abstract retrieved from http://files.eric.ed.gov/fulltext/ED562183.pdf

Braverman, B. (2016). The digital divide. *Literacy Today, 33*(4), 16. Retrieved from https://instructionaltechnology2016.wordpress.com/2016/02/11/the-digital-divide/

Bray, B., & McClaskey, K. (2015). *Making learning personal.* Thousand Oaks, CA: Sage.

Brunsell, E., & Horejsi, M. (2013). A flipped classroom in action. *Science Teacher, 80*(2). Retrieved from https://www.questia.com/library/p2442/the-science-teacher/i3206500/vol-80-no-2-february

Brusic, S. A., & Shearer, K. L. (2014). The ABCs of 21st century skills. *Children's Technology & Engineering, 18*(4), 6-10. Retrieved from https://www.iteea.org/Publications/Journals/CTE/CTEMay2014.aspx

Bull, G., Thompson, A. D., Schmidt-Crawford, D., Garofalo, J., Hodges, C. B., Spector, J. M., … Kinshuk. (2016) Evaluating the impact of educational technology, *Journal of Digital Learning in Teacher Education, 32*(4), 117-118. doi:10.1080/21532974.2016.1217052

Capraro, R. M., Capraro, M. M., Scheurich, J. J., Jones, M., Morgan, J., Huggins, K. S., … & Han, S. (2016). Impact of sustained professional development in STEM on outcome measures in a diverse urban district. *Journal of Educational Research*, *109*(2), 181-196. doi:10.1080/00220671.2014.936997

Cho, J., De Zuniga, H. G., Rojas, H., & Shah, D. V. (2003). Beyond access: The digital divide and Internet uses and gratifications. *IT & Society*, *1*(4), 46-72. Retrieved from https://www.researchgate.net/publication/228891627_Beyond_Access_The_Digital_Divide_and_Internet_Uses_and_Gratifications

Cohen, D. K., & Bhatt, M. P. (2012). The importance of infrastructure development to high-quality literacy instruction. *Future of Children*, *22*(2), 117-138. doi:10.1353/foc.2012.0012

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (Laureate custom ed.). Boston, MA: Pearson Education.

Creswell, J. W. (2013a). *Qualitative inquiry and research design: Choosing among five approaches*. Los Angeles, CA: Sage Publications.

Creswell, J. W. (2013b). *Research design: Qualitative, quantitative, and mixed methods approaches*. Los Angeles, CA: Sage Publications.

Curwood, J. S. (2014). English educators' cultural models about technology: A microethnographic perspective on professional development. *Journal of Literacy Research*, *46*(1), 9-38. doi:10.1177/1086296X13520426

Darling-Hammond, L., Zielezinski, M. B., & Goldman, S. (2014, September 10). *Using technology to support at-risk students' learning*. Retrieved from https://edpolicy.stanford.edu/publications/pubs/1241.

Davies, R. S., & West, R. E. (2014). Technology integration in schools. In J. M. Spector, M. D. Merrill, J. Elen, & M. J. Bishop (Eds.), *Handbook of research on educational communications and technology* (4th ed., pp. 841-853). New York, NY: Springer.

Deal, T. E., & Peterson, K. D. (2016). *Shaping school culture*. San Francisco, CA: John Wiley & Sons.

Dee, T. S., & Jacob, B. (2011). The impact of No Child Left Behind on student achievement. *Journal of Policy Analysis and management*, *30*(3), 418-446. doi:10.1002/pam.20586

Dornisch, M. (2013). The digital divide in classrooms: Teacher technology comfort and evaluations. *Computers in the Schools*, *30*(3), 210-228. doi:10.1080/07380569.2012.734432

Drew, S. V. (2012). Open up the ceiling on the common core state standards: Preparing students for 21st-century literacy—Now. *Journal of Adolescent & Adult Literacy*, *56*(4), 321-330. doi:10.1002/jaal.00145

Every Student Succeeds Act, 20, U.S.C. § 1177 (2015).

Gamrat, C., Zimmerman, H. T., Dudek, J., & Peck, K. (2014). Personalized workplace learning: An exploratory study on digital badging within a teacher professional development program. *British Journal of Educational Technology, 45*(6), 1136-1148. doi:10.1111/bjet.12200

Gast, I., Schildkamp, K., & van der Veen, J. T. (2017). Team-based professional development interventions in higher education: A systematic review. *Review of Educational Research, 87*(4). doi:10.3102/0034654317704306

Gordon, S. P. (2016). Expanding our horizons: Alternative approaches to practitioner research. *Journal of Practitioner Research, 1*(1), 2. doi:10.5038/2379-9951.1.1.1030

Gray, J., Kruse, S., & Tarter, C. J. (2017). Developing professional learning communities through enabling school structures, collegial trust, academic emphasis, and collective efficacy. *Educational Research Applications,* 1-8.

Green, W., Hibbins, R., Houghton, L., & Ruutz, A. (2013). Reviving praxis: Stories of continual professional learning and practice architectures in a faculty-based teaching community of practice. *Oxford Review of Education, 39*(2), 247-266. doi:10.1080/03054985.2013.791266

Hechter, R. P., & Vermette, L. A. (2013). Technology integration in K-12 science classrooms: An analysis of barriers and implications. *Themes in Science and Technology Education*, *6*(2), 73-90. Retrieved from http://earthlab.uoi.gr/ojs/theste/index.php/theste/article/view/123/88

Heitin, L. (2014, July 10). A return to 'balanced literacy'? [Web log post]. Retrieved from http://blogs.edweek.org/edweek/curriculum/2014/07/a_return_to_balanced_literacy.html

Howley, A., Wood, L., & Hough, B. (2011). Rural elementary school educators' technology integration. *Journal of Research in Rural Education*, *26*(9), 1-13. Retrieved from http://jrre.vmhost.psu.edu/wp-content/uploads/2014/02/26-9.pdf

Hubbard, P. (2013). Making a case for learner training in technology enhanced language learning environments. *Calico Journal, 30*(2), 163-178. doi:10.11139/cj.30.2.163-178

Jacob, B., Berger, D., Hart, C., & Loeb, S. (2016). Can technology help promote equality of educational opportunities? *Russell Sage Foundation Journal of the Social Sciences, 2*(5), 242-271. doi:10.7758/rsf.2016.2.5.12

Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2014). *NMC horizon report: 2014 higher education edition*. Austin, TX: The New Media Consortium.

Kim, C., Kim, M. K, Lee. C., Spector, J. M., & DeMeester, K. (2013). Teacher beliefs and technology integration. *Teaching & Teacher Education*, *29*, 76-85. doi:10.1016/j.tate.2012.08.005

Kist, W. (2013). New literacies and the common core. *Educational Leadership, 70*(6), 38-43. Retrieved from http://www.ascd.org/publications/educational-leadership/mar13/vol70/num06/New-Literacies-and-the-Common-Core.aspx

Koh, J. H. L., Chai, C. S., & Lim, W. Y. (2016). Teacher professional development for TPACK-21CL: Effects on teacher ICT integration and student outcomes. *Journal of Educational Computing Research, 55*(2), 172-196. doi:10.1177/0735633116656848

Kumar, S., & Daniel, B. K. (2016). Integration of learning technologies into teaching within Fijian polytechnic institutions. *International Journal of Educational Technology in Higher Education, 13*(1), 36. doi:10.1186/s41239-016-0036-8

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Thousand Oaks, CA: Sage Publications.

Leedy, P. D., & Ormrod, J. E. (2013). The nature and tools of research. In *Practical research: Planning and design* (pp. 19-27). England: Pearson.

Lefoe, G. E., Parrish, D. R., Keevers, L. M., Ryan, Y., McKenzie, J., & Malfroy, J. (2013). A CLASS act: The teaching team approach to subject coordination. *Journal of University Teaching & Learning Practice, 10*(3). Retrieved from http://files.eric.ed.gov/fulltext/EJ1017217.pdf

Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2010). *Methods in educational research: From theory to practice*. San Francisco, CA: John Wiley & Sons.

Long Beach Unified School District. (n.d.). *Common core state standards k-12 technology skills scope and sequence.* Retrieved from

https://www.cde.state.co.us/cdesped/accommodationsmanual_ccss_k12_techscope

Luther, F. D. (2015). Preparing for CCSS implementation: Determining the state of web 2.0 technology. *Delta Kappa Gamma Bulletin, 81*(2). Retrieved from https://www.questia.com/library/journal/1P3-3564889481/preparing-for-ccss-implementation-determining-the

Maneen, C. A. (2016). *A case study of arts integration practices in developing the 21st century skills of critical thinking, creativity, communication, and collaboration* (Doctoral dissertation). Retrieved from http://digitalcommons.gardner-webb.edu/cgi/viewcontent.cgi?article=1158&context=education_etd

Mazur, A. D., Brown, B., & Jacobsen, M. (2015). Learning designs using flipped classroom instruction. *Canadian Journal of Learning & Technology*, *41*(2), 1-26. Retrieved from http://files.eric.ed.gov/fulltext/EJ1064818.pdf

Miller, E. B., & Warschauer, M. (2014). Young children and e-reading: Research to date and questions for the future. *Learning, Media, and Technology, 39*(3), 283-305. doi:10.1080/17439884.2013.867868

Miranda, H. P., & Russell, M. (2012). Understanding factors associated with teacher-directed student use of technology in elementary classrooms: A structural equation modeling approach. *British Journal of Educational Technology*, *43*(4), 652-666. doi:10.1111/j.1467-8535.2011.01228.x

Moore, Z., Morales, B., & Carel, S. (2013). Technology and teaching culture: Results of a state survey of foreign language educators. *Calico Journal*, *15*(1-3), 109-128. doi:10.1558/cj.v15i1-3.109-128

Murnane, R., Sawhill, I., & Snow, C. (2012). Literacy challenges for the twenty-first century: Introducing the issue. *Future of Children*, *22*(2), 3-15. doi:10.1353/foc.2012.0013

National Center for Education Statistics. (2015). *The nation's report card: Reading framework for the 2015 national assessment of educational progress*. Retrieved from http://www.nagb.org/publications/frameworks/reading/2015-reading-framework.pdf

National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common core state standards*. Washington, DC: Authors.

Neuman, S. B., & Celano, D. C. (2012). Worlds apart: One city, two libraries, and ten years of watching inequality grow. *American Educator*, *36*(3), 13-23. Retrieved from http://www.aft.org/sites/default/files/periodicals/Neuman_0.pdf

New York City Department of Education. (2016, May). *XXX school district 2014-2015 school comprehensive education plan (CEP).* Retrieved from http://schools.nyc.gov/

New York Schools. (2016). *XXX school district select demographics 2014-2015*. Retrieved from http://www.newyorkschools.com/

New York Schools. (2017). *XXX school district 5th grade outcomes on state English language arts exam compared to city outcomes 2014-2015*. Retrieved from http://www.newyorkschools.com/nyc-schools/

New York State Education Department. (n.d.). *New York State learning standards and core curriculum.* Retrieved from http://www.p12.nysed.gov/ciai/cores.html.

Nikolopoulou, K., & Gialamas, V. (2013). Barriers to the integration of computers in early childhood settings: Educators' perceptions. *Education and Information Technologies, 20,* 285-201. doi:10.1007/s10639-013-9281-9

No Child Left Behind Act of 2001, 107-110, 20 U.S.C. § 6319 (2002).

Noeth, R. J., & Volkov, B. B. (2004). *Evaluating the effectiveness of technology in our schools: ACT policy report*. Retrieved from http://www.act.org/research/policymakers/pdf/school_tech.pdf

Oriji, A., & Amadi, R. (2016). E-education: Changing the mindsets of resistant and saboteur teachers. *Journal of Education and Practice, 7*(16), 122-126. Retrieved from http://files.eric.ed.gov/fulltext/EJ1108660.pdf

Pandya, J. Z., & Aukerman, M. (2014). A four resources analysis of technology in the CCSS. *Language Arts*, *91*(6), 429. Retrieved from http://www.academia.edu/12096568/Zacher_Pandya_J._and_Aukerman_M._2014_._Research_and_Policy_A_Four_Resources_Analysis_of_Technology_in_the_CCSS._Language_Arts_91_6_429-435

Paprzycki, P., Tuttle, N., Czerniak, C. M., Molitor, S., Kadervaek, J., & Mendenhall, R. (2017, June 7). The impact of a framework-aligned science professional development program on literacy and mathematics achievement of K-3 students. *Journal of Research in Science Teaching*. doi:10.1002/tea.21400

Parsons, S. A., Vaughn, M., Malloy, J. A., & Pierczynski, M. (2017). The development of teachers' visions from preservice into their first years teaching: A longitudinal study. *Teaching and Teacher Education, 64*, 12-25. doi:10.1016/j.tate.2017.01.018

Piper, B., Zuilkowski, S. S., Kwayumba, D., & Strigel, C. (2016). Does technology improve reading outcomes? Comparing the effectiveness and cost-effectiveness of ICT interventions for early grade reading in Kenya. *International Journal of Educational Development*, *49*, 204-214. doi:10.1016/j.ijedudev.2016.03.006

Pittman, T., & Gaines, T. (2015). Technology integration in third, fourth and fifth grade classrooms in a Florida school district. *Educational Technology Research and Development 63*(4), 539-554. doi:10.1007/s11423-015-9391-8

Plumb, M., & Kautz, K. (2015). Barriers to the integration of information technology within early childhood education and care organisations: A review of the literature. *Australasian Journal of Information Systems, 19,* 1-15. Retrieved from http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1810&context=buspapers

Safitry, T. S., Mantoro, T., Ayu, M. A., Mayumi, I., Dewanti, R., & Azmeela, S. (2015). Educators' perspectives and practices in applying technology to enhance learning

in the classroom. *International Journal of Emerging Technologies in Learning*, *10*(3), 10-14. doi:10.3991/ijet.v10i3.4356

Sarkar, S., Mohapatra, S., & Sundarakrishnan, J. (2017). Assessing impact of technology based digital equalizer programme on improving student learning outcomes. *Education and Information Technologies, 22*(1), 195-213. doi:10.1007/s10639-015-9434-0

Schechter, R., Macaruso, P., Kazakoff, E. R., & Brooke, E. (2015). Exploration of a blended learning approach to reading instruction for low SES students in early elementary grades. *Computers in the Schools, 32*(3-4), 183-200. doi:10.1080/07380569.2015.1100652

Schols, M. (2012). Examining and understanding transformative learning to foster technology professional development in higher education. *International Journal of Emerging Technologies in Learning, 7*(1), 42-49. doi:10.3991/ijet.v7i1.1764

Shea, N. A., Mouza, C., & Drewes, A. (2016). Climate change professional development: Design, implementation, and initial outcomes on teacher learning, practice, and student beliefs. *Journal of Science Teacher Education, 27*(3), 235-258. doi:10.1007/s10972-016-9456-5

Tarhini, A., Arachchilage, N. A. G., & Abbasi, M. S. (2015). A critical review of theories and models of technology adoption and acceptance in information system research. *International Journal of Technology Diffusion*, *6*(4), 58-77. doi:10.4018/ijtd.2015100104

Thirunarayanan, M. O., Lezcano, H., McKee, M., & Roque, G. (2011). "Digital nerds" and "digital normals": Not "digital natives" and "digital immigrants." *International Journal of Instructional Technology and Distance Learning*, *8*(2), 25-33. Retrieved from http://www.itdl.org/Journal/Feb_11/article03.htm

Tomlinson, C. A. (2015). Teaching for excellence in academically diverse classrooms. *Society*, 52(3), 203-209. doi:10.1007/s12115-015-9888-0

Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms* (3rd ed.). Alexandria, VA: ASCD.

Vadasy, P. F., Sanders, E. A., & Nelson, J. R. (2015). Effectiveness of supplemental kindergarten vocabulary instruction for English learners: A randomized study of immediate and longer-term effects of two approaches. *Journal of Educational Effectiveness.* Advance online publication. doi:10.1080/19345747.2015.1033120

Vaughn, M., & Faircloth, B. (2013). Teaching with a purpose in mind: Cultivating a vision. *Professional Educator, 37*(2), 1-12. Retrieved from http://files.eric.ed.gov/fulltext/EJ1025687.pdf

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly 27*(3), 425-478. Retrieved from http://www.jstor.org/stable/30036540?seq=1#page_scan_tab_contents

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of

technology. *MIS Quarterly*, *36*(1), 157-178. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2002388

Walden University. (2017). *Social change.* Retrieved from https://www.waldenu.edu/about/social-change

Walker, A., Recker, M., Ye, L., Robertshaw, M., Sellers, L., & Leary, H. (2012). Comparing technology-related teacher professional development designs: A multilevel study of teacher and student impacts. *Educational Technology Research & Development, 60*(3), 421-444. doi:10.1007/s11423-012-9243-8

Wang, S. K., & Hsu, H. Y. (2013). The impact of professional development on science teachers' inquiry and new literacy practices: Using ICTs as cognitive tools. *Proceedings of E-Learn 2013 – World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 2166-2173). Retrieved from https://www.learntechlib.org/p/115203/

Webster, M. D. (2017). Philosophy of technology assumptions in educational technology leadership. *Journal of Educational Technology & Society, 20*(1), 25-36. Retrieved from http://www.ifets.info/issues.php?id=75

Wieczorek, D. (2017). Principals' perceptions of public schools' professional development changes during NCLB. *Education Policy Analysis Archives, 25*, 8. doi:10.14507/epaa.25.2339

Yin, R. K. (2014). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.

Yin, R. K. (2015). *Case study research: Design and methods*. Thousand Oaks, CA: Sage publications.

Yu, C., & Prince, D. L. (2016). Aspiring school administrators' perceived ability to meet technology standards and technological needs for professional development. *Journal of Research on Technology in Education, 48*(4), 239-257. doi:10.1080/15391523.2016.1215168

Zhao, Y. (2013). Recent developments in technology and language learning: A literature review and meta-analysis. *Computer-Assisted Language Instruction Consortium Journal*, *21*(1), 7-27. doi:10.1558/cj.v21i1.7-27

Appendix A: The Project

Technology Learning Opportunities for Classroom Literacy

Professional Development for Classroom Teachers

Day 1 March 7, 2018

Welcome/Introductions

I. Opening Survey

II. Established Settings

III. The Four Pillar Power Point Presentation and Video

IV. The Blocks to Professional Learning

V. Break

VI. What are the building blocks to professional learning? (Open Discussion)

VII. Understanding the Mission Statement (Presentation Preview)

VIII. The Mission (Open Discussion)

IX. Lunch

X. Do you have a mission? (Group Work)

XI. Break

XII. Relax and Respond

XIII. Turn to your neighbor and tell one word that describes how you are feeling right now.

XIV. Direction for Day 2 tomorrow's session

XV. Exit Slip, before leaving rate the effectiveness of the P.D. today, tell one thing new you learned today.

Materials Day One

- Chart paper and colorful markers
- Desktop computers
- Blank lesson plan template
- Group binder

Tool for Evaluating Professional Learning Opportunities for Classroom Teachers

You should complete this survey before the start of the 3-day Professional Development in January 2017 and complete it following the 2018-2019 school year. A link will be sent to the email provided for the 2018-2019 school year.

1. Did you currently use digital devices in the literacy classroom for 2016-2017 school year? **Circle: Yes or No**

2. Has the school district provided adequate professional learning opportunities for educators in 2016-2017 school year? **Circle: Yes or No**

3. Did the school encourage the use of technology devices into the literacy classroom in 2016-2017 school year? **Circle: Yes or No**

4. Does technology-driven lesson in the literacy classroom enhance the classroom environment and improve student success? **Circle: Yes or No**

5. Do you agree that by the year 2020 technology integration in the literacy classroom will be implemented in all elementary classrooms? **Circle: Yes or No**

The researcher will also collect artifacts professional development dates and activities.

The Four Pillars

Go to your email and open the email titled "The Four Pillars." Click the link and view the public video.

The Building Blocks to Professional Learning

What are the building blocks to learning?	How can the building blocks to learning align with technology?	What would the building blocks and technology look like in your classroom?

Exit Slip – Day 1

How would you rate the effectiveness of the P.D? List one or more new things you learned today.

Technology Learning Opportunities for Classroom Teachers

Professional Development for Classroom Teachers

Day 2 April 7, 2018

Agenda

I. Welcome Back/Questions

II. Technology expectations and the "need to integrate"

III. Your thoughts

IV. Address the project guiding questions: (Whole Group Discussion) 1. What challenges do you see going forward with technology integration in the classroom? 2. How can administrators support the use and acceptance of technology in the classroom? 3. Do you agree or disagree with the reason to integrate technology in the classroom? Explain.

V. Break

VI. Classroom Technology Training & Development (Shared reading, activity).

VII. Break

VIII. Address guiding questions: (Group Activity) 4. Would you agree that the school's mission statement encourages technology integration? 5. How would you describe classroom technology are you familiar with project-based learning in the classroom? 6. What digital devices are you using in the classroom?

IX. Lunch

X. Revisit, Reflect, Respond

XI. Turn to your neighbor and tell two word that describes how you are feeling right now.

XII. Direction for Day 3 tomorrow's session

XIII. Exit Slip before leaving, if you could change one thing in today's P.D., what would it be? Tell two things new you learned today

Materials for Day 2

- Chart paper and colorful markers
- Desktop computers
- Black lesson plan template
- Group binder

Project Guiding Questions

Whole Group Discussion Recording Chart

What challenges do you see going forward with technology integration in the classroom?	How can administrators support the use and acceptance of technology in the classroom?	Why is it necessary to integrate technology in the classroom?	How likely are you to integrate technology in the classroom?	Questions/Concerns

The Benefits of Professional Development

Log into your school email and find the email sent titled "American Educators" and click on the article *"Classroom Technology Training & Development"*.

References: EDUCATORS OF AMERICA (2017) *Classroom Technology Training & Development.*

Revisit-Reflect-Response Chart

I Know	I understand	I learned

Day 2 Exit Slip

If you could change one thing in today's P.D., what would it be?

Technology Learning Opportunities for Classroom Teachers

Professional Development for Classroom Teachers

Day 3 May 7, 2018

Agenda

I. Welcome Back/Questions

II. What kind of educator are you? (Open Discussion)

III. Educators of America (online literacy).

IV. Project-Based Learning

V. Revisit session 2 digital devices used in the classroom? (Open Discussion)

VI. Break

VII. What does project-based learning look like? (Group Activity)

VIII. Teachers share thoughts and opinions

IX. Discuss how project-based learning activities can be integrated into instruction

X. Lunch

XI. Let's Design (Group Activity)

XII. Break

XIII. Design a project-based activity appropriate for their grade

XIV. Discuss, Share, Reflect

XV. Final Survey

XVI. Turn to your neighbor and tell one word that describes how you are feeling right now.

XVII. Directions for future surveys

XVIII. Questions/Concerns

XIX. Thank You to all

XX. Exit Slip before leaving on a scale from 1-10, 1 being the lowest and 10 being the highest, rate the effectiveness of the 3-day P.D. sessions. Tell three things new you learned today.

American Educators

Go to your email, find emailed titled "Educators of America" and click the "Educators of America" article.

References: EDUCATORS OF AMERICA (2017). *Project Based Learning*

Project-Based Group Activity

Discuss, Share, and Reflect Response Chart

What is project-based learning	What would project-based learning look like in your classroom?	What are your thoughts on project-based learning?

Exit Slip Day 3

Please rate the effectiveness of the tree-day Technology Professional Development Opportunity for Teachers. ***Circle one*** 1 2 3 4 5 6 7 8 9 10

Final Survey

Tool for Evaluating Professional Learning Opportunities for Classroom Teachers

You should complete this survey **after** day 3 of the Professional Development in January 2017 and complete it following the 2018-2019 school year. A link will be sent to the emailed provided for the 2018-2019 school year.

1. On a scale from 1-10, 1 being the lowest and 10 being the highest, how would you rate the effectiveness of the 3-day professional development sessions?

   Circle One **1 2 3 4 5 6 7 8 9 10**

2. If the school district was to provide more professional learning experiences like this one, would you attend? **Please write yes, no or I don't know**

3. On a scale from 1-10, how likely are you to use technology in the literacy classroom for the 2017-2018 school year?

   Circle One **1 2 3 4 5 6 7 8 9 10**

4. If educators receive on going professional development, do you think that the relationship you have with technology and teaching will increase? **Please write yes, no or I don't know**

   Please follow the link below at the start of the next school year 2018-2019 and answer 4 questions for a period of three school years. All who provide contact information will receive a reminder at the start of each school term until 2021.

The researcher will also collect artifacts, professional development dates and activities.

Researchers Contact Information

Email_____

Cell Phone_____

Participant Contact Information 1st email Address _____

Secondary email Address _____

CURRICULUM GUIDE
TECHNOLOGY PROFESSIONAL DEVELOPMENT
PROFESSIONAL DEVELOPMENT
FOR SCHOOL TEACHERS

Day 1 September 7, 2018

Date/Time	**Daily Objective**	**Daily Activities**	**Resources/** **Facilitators**
9:00-9:10	What kind of teacher are you?	Introduction: name, school and the expectations for P.D. Welcome to all game, say, I like to do followed by an activity: Say- Yes! That's Me I like working and learning from others. Teachers shout out-Yes! That's me.	One volunteer will scribe the expectation on large chart paper Facilitator (Valerie) will come up with two more phrases
9:10-9:20	Establish Setting, Take the Survey	Introduce and set up groups. Set the expectations for what an establish setting looks like. Take the survey. Each group will determine who will be the recorder and facilitator.	One volunteer will record the established setting norms. This will be noted and can be seen in Google Doc.
9:20-9:30	What digital devices have you used in the classroom?	***Independent Work;*** Teacher work independently to come up with one thought. ***Essential Questions:*** 1. How confident are you with the use	Each group needs markers, and chart paper Each chosen group member will facilitate group responses. One teacher will facilitate the sharing by charting

		of technology in the classroom? 2. How often do you use technology in the literacy classroom? ***Group Sharing*** After each has one belief they will discuss and share with group members. The group facilitator will scribe each thought on large chart and highlight the similar thoughts. Each large chart will be placed on the board foe whole group discussion.	one response from each group of large chart paper. This can be seen in Google Docs
9:30-10:40	**The Four Pillars to learning and teaching**	***Independent Work:*** The four pillars of a P.DO.'s Discussed by Dufour and Eaker will be introduced in a short video ***Group Activity:*** Groups will discuss the building blocks and reflect on their own building blocks used in the classroom. Whole group sharing.	(Valerie) the Facilitator Each group has a facilitator Desk top computers. Chart paper and colorful markers.
10:40-10:55	**Break**		

10:55-12:00	What are the building Blocks to learning?	***Whole Group*** **Reflection Activity** Now that each of you have determine your belief, we will look at the "Blocks to learning"	(Valerie) the Facilitator Each Group has a facilitator One volunteer will scribe. This can be viewed in Google docs.
12:00-1:00	**Lunch**		
1:00-1:45	Understanding the Mission Statement	Now that you understand the "Four Pillars" and the "Building Blocks" impact learning and teaching it time to understand how the "Mission Statement" brings it all together. Understanding the Mission Statement 1. Read and Share the mission 2. Discuss the Mission 3. Create your own Mission	(Valerie) the Facilitator Each group has a facilitator Chart paper and colorful markers.
1:45-2:00	**Break**		
2:00-2:30	**Relax and** **Respond**	**Turn to your neighbor and tell one word that describes how you are feeling right now**	Each group has a facilitator
2:30-2:45	**Day 1 Conclusion**	Give direction for Day 2 session.	(Valerie) the Facilitator
2:45-3:00	**Exit Slip**	Before leaving rate the effectiveness of	(Valerie) the Facilitator

		the P.D. today, tell one thing new you learned today.	Group facilitators will start an ongoing chart to list responses from each group member. This chart will be continued until day 3 for sharing and reflections.

Day 2 October 7, 2018

Date/Time	**Daily Objective**	**Daily Activities**	**Resources/ Facilitators**
9:00-9:10	Welcome Back/Questions	***Revisit, Reflect, Rethink***	One volunteer will scribe the expectation on large chart paper Facilitator (Valerie) will come up with two more phrases
9:10-9:20	Technology Expectations and the "need to integrate"	***Whole Group Discussion***	One volunteer will scribe all responses This can be seen in Google Docs
9:20-9:30	What are your thoughts on Technology integration in the classroom?	***Whole Group Open Discussion***	One volunteer will scribe all responses This can be seen in Google Docs
9:30-10:40	Are you familiar with project-based learning in the classroom?	***Independent Activity:*** Go to email find: "Educators of America" and click on the article link titled "Project-	(Valerie) the Facilitator Group facilitators record responses on chart paper. Each person need a desk top computer,

		Based Learning" Read the short article. ***Group Activity*:** **Essential Question:** What is Project-Based Learning? ***Reflect and Record*** some phrases that describe what project-based learning is and how that impacts learning.	markers and chart paper.
10:40-10:55	**Break**		
10:55-12:00	Technology Expectations and the "need to integrate"	***Group Activity:*** ***Essential Question:*** What digital devices are you using in the classroom? The group facilitator will write one response for each question that shows agreements among the group members. ***Guiding Questions:*** 1. What challenges do you see going forward with technology integration in the classroom? 2. How can administrators support the use and	Valerie) the Facilitator Each group has a facilitator Chart paper and colorful markers.

		acceptance of technology in the classroom? 3. Do you agree or disagree with the reason to integrate technology in the classroom? Explain.	
12:00-1:00	**Lunch**		
1:00-1:45	Technology Integration Thoughts and Concerns	Group/Activity: **Essential Question:** How would you describe supports and services provided by school administrators when integrating technology in the classroom? **Guiding Questions:** 4. Would you agree that the school's mission statement encourages technology integration? 5.How would you describe classroom technology?	(Valerie) the Facilitator Each group has a facilitator Chart paper and colorful markers.
1:45-2:00	**Break**		
2:00-2:30	**Relax and Respond**	Turn to your neighbor and tell two words that describes how you are feel about technology integration	The group facilitator will write responses on an ongoing chart. The char will be displayed on day 3

			and shared in a whole group.
2:30-2:45	**Day 2 Conclusion**	Give direction for Day 3 session.	(Valerie) the Facilitator
2:45-3:00	**Exit Slip**	Before leaving rate the effectiveness of the P.D. today, tell 2 things you learned about technology integration.	(Valerie) the Facilitator

Day 3 November 7, 2018

Date/Time	**Daily Objective**	**Daily Activities**	**Resources/** **Facilitators**
9:00-9:10	Welcome Back/Questions	Revisit and Reflect	One volunteer will scribe the expectation on large chart paper Facilitator (Valerie) will come up with two more phrases
9:10-9:20	Integrating Project-Based Activities	***Whole Group*** reflect and discussion: Revisit a section of the "Project-Based" article from day 2. Together list and discuss some of the project-based activities used	One volunteer will scribe the established setting norms. This will be noted and can be seen in Google Doc.
9:20-9:30	Enhancing teaching and learning through a project-based approach!	***Whole Group*** ***A New Approach*** ***Think, Share and Prepare***	Each group needs markers, and chart paper Each chosen group member Facilitate

		Each group will think about a project-based approach to be used in their classroom. Each group will work together to design one activity that would be grade appropriate for the classroom.	group responses. One teacher will facilitate the sharing by charting one response from each group of large chart paper. This can be seen in Google Docs
9:30-10:40	**Integrating Technology into the literacy classroom**	***Group Activity*** **Let's Create and Design**	(Valerie) the Facilitator Each group has a facilitator Chart paper and colorful markers.
10:40-10:55	**Break**		
10:55-12:00	**Integrating Technology into the literacy classroom**	***Group Activity*** *Continue* **Lets Create and Design**	(Valerie) the Facilitator Each group has a facilitator Chart paper and colorful markers.
12:00-1:00	**Lunch**		
1:00-1:45	**Integrating Technology into the literacy classroom**	***Whole Group*** Let's Share and Discuss our Creations	(Valerie) the Facilitator Each group has a facilitator

			Chart paper and colorful markers.
1:45-2:00	**Break**		
2:00-2:30	**Relax and Respond**	Turn to your neighbor and tell three words that describes how you are feeling right now about technology integration	Each group has a facilitator
2:30-2:45	**Day 3 Conclusion Tell three things new you learned today about technology integration. Ongoing chart sharing and reflection. Researchers information form Participants information form Final Survey**	Day 3 chart reflection. Give direction for future surveys and follow up. Provide my contact information. Collect participant information. Thank all for attending the P.D.	(Valerie) the Facilitator One volunteer will scribe the established setting norms. This will be noted and can be seen in Google Doc.
2:45-3:00	**Exit Slip**	Before leaving rate the effectiveness of the P.D. today,	(Valerie) the Facilitator

POWER POINT PRESENTATION

TO ACCOMPANY CURRICULUM GUIDE

Day 1 September 7 Presentation

Welcome Slide

Integrating Technology in Elementary School Classrooms Professional Development Fall 2017
Welcome Day 1

Slide 1

Welcome/Introduction

Please introduce yourself by stating your name and what technology professional development opportunities appear to you.

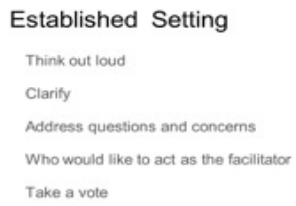
Slide 2

Yes, that's me!

Hello,

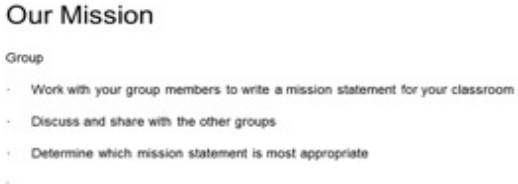
I enjoy collaborating and sharing with others. If that's you please shout " Yes, that's me!"

Slide 3



Slide 4

Slide 5



Slide 6

Sample Mission Statement

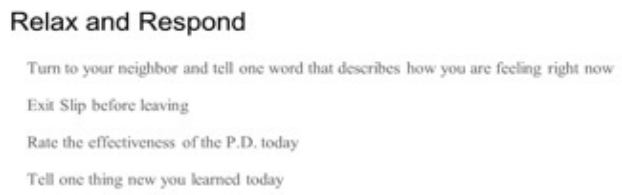
A mission statement would be reviewed by the group attending the professional development session. The mission statement would be appropriate for the school or district under study.

Slide 7

Slide 8

Slide 9

Slide 10



Day 2 October 7 Presentation

Welcome Slide

Integrating Technology in Elementary School Classrooms Professional Development Fall 2017
Welcome Day 2

Slide 1

Review our Mission Statement

A mission statement would be reviewed by the group attending the professional development session. The mission statement would be appropriate for the school or district under study.

Slide 2

What's Expected?

Our crosswalk documents the alignment between representative learning goals from Washington's Educational Technology Standards and the Common Core State Standards for ELA. Although teachers can integrate hardware and software into their practice as students work to meet the CCSS standards for ELA and mathematics, the primary purpose of the educational technology standards is to support student thinking skills.

Slide 3

Why Integrate Technology?

First, the U.S. Department of Education, 2002 mandated that Elementary and Secondary Education Act emphasis on technology integration in all areas of K-12 education, from reading and mathematics to science and special education.

Most importantly, technology is ubiquitous, touching almost every part of our lives, our communities, our homes. In addition, many schools systems are far behind when it comes to integrating technology into classroom to enhance learning (

Lastly, Current research has shown, effective tech integration must happen across the curriculum in ways that research shows deepen and enhance the learning process.

Slide 4

Open Discussion

What challenges do you see going forward with technology integration in the classroom

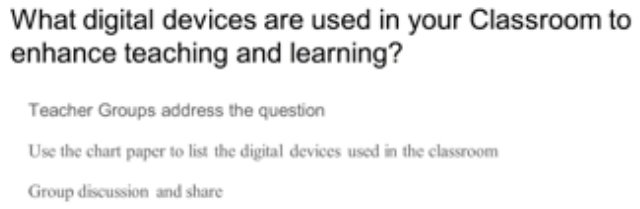
How can administrators support the use and acceptance of technology in the classroom

Do you agree or disagree with the reason to integrate technology in the classroom? Explain

Would you agree that the school's mission statement encourages technology integration

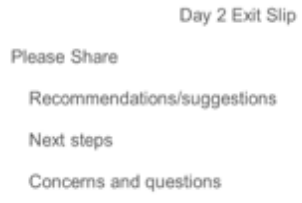
How would you describe classroom technology

Slide 5



Slide 6

Slide 7



Slide 8

References

GEORGE LUCAS EDUCATIONAL FOUNDATION retrieved from https://www.edutopia.org/technology-integration-introduction (

(May 2017).

EDUCATORS OF AMERICA (2017) Classroom Technology Training &Development https://www.educatorsusa.org/classroom-technology?gclid=CImexZeXmtMCFQKBswoddXcH8g

Day 3 November Presentation

Welcome Slide

Integrating Technology in Elementary School Classrooms Professional Development Fall 2017
Welcome Day 3

Slide 1

What kind of educators are you?

Group/Individual team work and open discussion

Slide 2

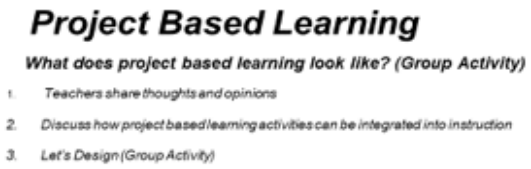
Educators of America

Online literacy connection

Click on the link and review the article.

A direct link has not been included in the presentation for publishing and permission reasons

Slide 3



Slide 4

Lets Design

Group work

Designing a project base activity appropriate for the grade

Slide 5

Lets Share

Each group will share their projects with others

Slide 6

Professional Development Reflection

Group Discussion: *Turn to your neighbor and tell one word that describes how you are feeling right now*

Whole Group discussion: ***Revisit, Reflect, Respond***

Slide 7

Conclusion

Whole Group: *Final Survey*
Whole Group:*Directions for future surveys*
Whole Group: *Questions/Concerns*

Thank You to all

Slide 8

A SINCERE GOODBYE

Exit Slip before leaving on a scale from 1-10, 1 being the lowest and 10 being the highest, rate the effectiveness of the 3-day P.D. sessions. Tell three thing new you learned today

Appendix B: Interview Protocols

Valerie Coward-Vaughn Interview Protocols for Project Study

Interview Checklist

Did I gain permission to study this site from principal? ___

Did all willing participants complete a questionnaire? ____

Did I attain informed consent from the participant and provide a copy to the participant?

Ensure that the interview location is comfortable to interviewee prior to interview____

Ensure that audio equipment is working and a backup plan

Secure permission to record the interview ____

Listen more and talk less from the beginning of the interview ____

Ask probing questions for clarification and elaboration ____

Withhold all judgments and only document participants data___

Use members checking and a peer debriefed to ensure validity ___

Read Project Description prior to interview (below) ___

Interview Protocol

Date & Time:

Setting (pseudonym):

Interviewer: Valerie Coward-Vaughn

Interviewee (pseudonym):

Grade Level: Project Description to Share with Interviewee

This study is being done by, Valerie Coward-Vaughn who is a doctoral student at Walden University. The purpose of this investigation is to examine how 1st thru 5th grade educators accept and integrate technology with literacy to enhance literacy teaching and learning.

The participants for this study was purposefully homogenously sample. The participants consist of nine classroom educators, 2 school and one district administrator. The source of data collection is interviews lasting no longer than 45 minutes.

The data collected from this study will be tracked with researcher journal, members interview logs and transcripts. All participants names and verbal data will be kept confidential at all times. All data will be kept on password-protected laptop and flash drives. All hard copy data will be kept in a sealed envelope. All laptops, flash drives and envelope will be kept in a locked metal lock box at my home. All audio data also password-protected will be secure too. All reported findings will be done using pseudonyms for privacy purposes.

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

Educators (Open-Ended Interview Questions) Start Word-by-Word Transcription

1. What digital devices have you used in the literacy classroom?
2. How confident are you with the use and acceptance of technology in the classroom? Explain
3. How often do you integrate technology with literacy? Explain how you integrate technology
4. How can a classroom environment enhanced with technology improve teaching and learning? Explain
5. Do you feel that technology improves classroom instruction and increases student success? Tell me more
6. Please describe how the school current technology program is implemented into the school's literacy curriculum and instruction. Explain
7. Please describe how school and district administrators can help educators build better relationships with technology and teaching? Explain
8. How would you describe administrative supports and services to help educators build better relationships with technology and teaching professional development opportunities? Tell me more

Administrators (Open-Ended Interview Questions) Start Word-by-Word

Transcription

9. How would you describe the overall acceptance and use of technology by classroom educators? Explain
10. How would the school district move forward to help educators build better relationships with technology and teaching? **Explain**
11. How does school and district funding affect technology professional learning opportunities for educators? **Explain**
12. How would you describe the benefits of technology and teaching professional learning opportunities for teacher?

STOP WORD-BY-WORD TRANSCRIPTION AND THANK PARTICIPANT

Appendix C: Coding

Research Questions/Themes

GRQ 1What are educators' perceptions of how educators can build better relationships with technology and teaching to enhance student academic success?

RRQ 2 What are educators' perceptions of administrative and district supports and services that sustain instructional relationships with technology and teaching to enhance

Record Teachers relationships with Technology from Contextual Framework

1: Educators existing relationship with technology and teaching
2. Enhancement of student success with the use of technology
3.Organizational cultural impact (age, gender, beliefs)
4.Administrative supports and services

Table A 4

Description of educators use and acceptance of technology	Notes

Appendix D: Sample Confidentiality Agreement

Name of Signer:

During the course of my activity in collecting data for this research: "_____" I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement, I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: **Date:**

Appendix E: Demographic Questionnaire

INTRODUCTION

Voluntary Nature of the Study:

Participation is voluntary. If you do not want to participate your decision will be granted. No one at the school under study will treat you different if you chose not to participate. All participants' names and provided information will be kept confidential at all times. If you say yes now and decide later that you would like to withdraw, you can without repercussions of any kind.

Procedures:

You are being asked to do the following…

•Complete this participant demographics questionnaire that will take less than five minutes to fill it out.
•Return the demographic questionnaire via email or hand delivered to me at a later date.
•If you decided not to participate, no response is necessary.

Participant Name_____

Age Range: Underline one age range

age: 20-30 age: 31-50 age: 51-64 age: 66 and over

Gender: M or F

Grade Taught_____

Years of Experiences and Certification_____

Available Time/ Date to meet with the researcher:

_____During in-services days Location in the school____

_____ After School Optional Location on the phone___

If you agree, Return and completion of the documents via email is required 48 hours later. I will return to the school in 72 hours to collect all hand delivered documents.