

RUNNING HEAD: TECHNOLOGY MOTIVATION IN THE READING AND
WRITING PROJECT

Technology Motivation in the Teachers College Reading and Writing Project

A Research Project Presented to
The Faculty of the School of Education
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By
Katie Scott
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Student Name: Katie Scott

Student ID: 000513969

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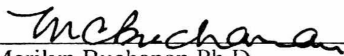


Advisor - Dr. James A. Martinez Ed.D. 5/24/17
Date



Second Reader – Dr. W. Charles Weis Ph.D. 5/24/17
Date

APPROVED FOR THE UNIVERSITY



Dr. Marilyn Buchanan Ph.D. 5/24/17
Interim Dean, School of Education Date

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Chapter 1- Introduction

Technology plays a large role in our educational system in the twenty-first century. Increasingly, students in United States schools are being equipped with their own devices. Miranda and Russell (2011) pointed out that Internet access is accessible at all public schools with “97% connected via high speed connection” (Miranda & Russell, 2011, p. 1; 2012; Clausen, Britten & Ring, 2008; Wells & Lewis, 2006). This affords students the ability to access knowledge from the Internet within seconds. A student with access puts learning at his fingertips. Schools are technology rich (Levin, & Schrum, 2013) with Smartboards®, document cameras, student digital desktops, iPads®, and much more, but teachers are not using these tools to their full capacities. Students already use technology for gaming or other entertainment. As a logical extension, teachers could enhance the educational potential of their students by using technology in the classroom. Teachers may already be using technology for professional productivity and to present information (Gorder, 2008).

Lucy Calkins, one of the founders of the Teachers College Reading and Writing Project (TCRWP), started a reading and writing program in New York City based on “influenced literacy instructions” (Teachers College Reading and Writing Project, 2014) in 1981. TCRWP was initiated and is located at Columbia University. Calkins has organized a group of educators who support thousands of schools nationally and internationally in their love of reading. Their mission is to help students become powerful readers and writers. However, technology available to Calkins and her organization thirty years ago has changed dramatically. A thirty-year curriculum cannot possibly incorporate digital literacy skills in ways that promote twenty-first century

learning. Calkins bestseller, *Writing Pathways: Performance Assessments and Learning Progressions, Grades K-8*, was published in 2014 without an emphasis on technology.

Billions of dollars have been spent buying technology (McKenzie, 2001), as well as purchasing the TCRWP curriculum for classrooms across the country. Unfortunately, teachers are not using the technology to improve student learning in the area of language arts. Miranda and Russell (2012) state, “The ubiquitous use of technology in contemporary society and its economic importance dictates that American students become proficient and critical users of technology; we can only achieve this if students use technology in the classroom” (p. 663).

The purpose of this investigation is to discover what motivates teachers to use technology within the TCRWP. This researcher has been working for an elementary school in California for five years using the TCRWP and noticed the lack of technology using the curriculum at this site. The teachers using the TCRWP are faithful to the concept and learning outcomes embedded in it. Students learning in those classrooms reflect the benefits of such an approach. In the world of the classroom, this is encouraging, but the use of technology and the Internet would, instead, “make the world a classroom.” Vu (2013) points out in his study that teachers agreed that the quality of their students’ tasks or assignments on the day that the iPad® was used was better than those on the day that the iPad® was not used.

Unfortunately, there are not enough studies on the use of technology within the TCRWP. TCRWP states, “The TCRWP directors and staff, in conjunction with teachers at many Project schools, are conducting ongoing inquiries into the use of technology as a way to enhance, differentiate, and support classroom teaching in reading and writing”

(2014). As the date of this study, there is no curriculum developed to help teachers use technology within the TCRWP. This causes teachers to not use the technology that districts have bought in the area of language arts. Technology has also been a recent tool brought into the schools. For example, Steve Jobs first presented the iPads® in 2010. Vu (2013) points out there is not an accurate number of devices in our public schools. We are still learning the positive and negative outcomes of technology tools. This research was conducted within a school that does not regularly use technology within the TCRWP, but has the benefit of having two computer labs, classroom Promethean Boards, 40 iPads®, and 60 laptops on their campus.

Through the research of discovering the motivation of elementary school teachers using technology in the TCRWP, school districts and principals will have a better understanding of teachers' needs in order to utilize and become comfortable with their available school technology in the area of language arts. Principals must have a better understanding of teachers' needs in order to have technology devices in student's hands more often. This will also benefit the local school boards in understanding the difficulties teachers are having in keeping up with the technology demands. Through this research Columbia University Teachers College will be able to develop more ideas to motivate their teachers into using technology within their unique program. They will also see the benefits and desires the teachers have in using technology within their program and develop a future curriculum that incorporates technology into the twenty-first century.

The research question addressed in this study is: To what degree are elementary school teachers motivated to use technology to instruct students in the Teachers College Reading and Writing Project?

Chapter 2- Literature Review

Introduction

Teachers in elementary schools have immense access to technology in their classrooms, but are not using them to their full capability. “Technology-rich classrooms should bustle with the same amount of noise and collaborative energy we see when we look at elementary and middle school learners hard at work” (Muhtaris & Ziemke, 2015, p. 5). Districts are spending enormous amounts of money on modern technology, but teachers are not implementing it into their classrooms in the area of language arts. The research question related to the study asks: to what degree are elementary school teachers motivated to use technology to instruct students in the Teachers College Reading and Writing Project? This literature review will address previously-published literature that states teachers’ motivational needs to use technology to implement in their language arts instruction. This literature review will begin with an overview of the context of the literature. The literature review addresses the following areas: professional development, administration and teacher-teacher support, and teacher beliefs that affect motivational factors with regard to the use of technology in the classroom.

Overview of the Context of Literature

Investigating key areas of research will help to understand teachers’ reluctance to use technology in their classrooms. These reasons may include the need for professional development, teacher’s beliefs, and administrative and teacher-teacher support. The theoretical framework used in this study is the epistemological framework, which is the concept of how a person obtains knowledge and how they assess their knowledge. This research study addresses how teachers are using their knowledge of technology in order

to use digital tools in the classroom. Specific technology tools that will be highlighted in this study are iPads®, laptops, and Promethean Boards.

Previous studies have investigated teachers' unwillingness to use iPads® in their classrooms due to lack of training, which leads them to "self teach" or turn to colleagues for support (Vu, 2013). Without training, teachers are reluctant to use technology to further students' learning. Another study expresses teachers' need for professional development to prepare and inspire them to use technology in rich activities (McKenzie, 2001). Hence, teachers need appropriate professional development in order to succeed with applying technology in their classroom.

Another study reveals that teachers who believe technology is beneficial for student learning will use technology more often than teachers who do not believe this (Miranda & Russell, 2012; O'Dyer, Russell, & Bebell, 2004). This concept connects to this study because teachers who do not believe technology is a useful tool will be less likely to implement this skill in the classroom. Another study presents teachers' attitudes predicting the outcome of student and teacher technology usage (Palak & Walls, 2009). A healthy belief in technology to enhance learning objectives would increase a teacher's comfort level. Miranda & Russell (2011) suggest that teachers use technology if they believe there is an instructional benefit. This means that teachers have to understand and comprehend the benefits in order to actually use the technology in their classroom.

Several studies suggest that teachers need support from administrators and colleagues in order to use technology in their classroom. One study identifies that administrators need to understand that it takes time for teachers to integrate technology in the classroom, and they need to give teachers more time to learn, plan, and prepare

(Gorder, 2008). This connects to teachers' motivational factors to use technology tools because without the support from their administrator or the time to learn and implement, then technology tools will not be used.

The analysis of past research supports reasons teachers may not be using technology in their language arts instruction. The criteria for analyzing and comparing published literature as it relates to technology use in the classroom are published articles, journals, and books. Technology use in the classroom is limited to research published after 2000 because technology before this date did not have the potentiality described here. There were no studies relating to technology in the Teachers College Reading and Writing Project since their establishment in 1981. An update to the educational possibilities might as well be included to modernize those curricula. Particular studies will address technology use in language arts specifically and other studies will address technology in the classroom.

Professional Development

Various studies state teachers' needs for more professional development in the use of technology. Davidson, Richardson, and Jones (2014) found that one reason language arts high school teachers were not using technology in their instruction was due to inadequate training. Davidson et. al. (2014) used qualitative research with language arts teachers as participants, finding that teachers wanted training on the effective use of technology as an instructional tool. These findings also noted that teachers wanted campus-based professional development so they were able to work on site with their peers. (Davidson, Richardson, & Jones, 2014; Jones, & Vincent, 2010). Collaboration with colleagues is a beneficial tool to integrating technology in the area of language arts.

McKenzie (2001) examined the concept of teachers learning technology. Some training programs previously offered were not beneficial in representing teachers changing for the better in the classroom. McKenzie believed that the hardest part of professional development is inspiring and helping teachers use technology that makes sense with their curriculum (McKenzie, 2001). According to McKenzie (2011), teachers must learn through experience and must be given ample time to work with colleagues to develop lessons using technology. McKenzie (2011) also found professional developments that are offered to teachers need to have an emphasis on adult learning strategies in order for teachers to fully use technology in the classroom.

Massey (2014) studied the effectiveness of the iPad® in the area of literacy tutoring. Massey was aware that majority of their in-service teachers at the beginning of the semester were new to teaching with an iPad®. Ongoing collaborative professional development helped with the integration of technology. A mentor model approach supported the in-service teacher in implementing the correct technology with the appropriate lesson or curriculum (Massey, 2014; Plair, 2008). Mentors in the Massey study coached the teacher through their technology lesson.

Beauchamp, Burden, and Abbinett (2015) studied teachers learning to use iPads® in Scotland and Wales. This study found that teachers tend to disregard conventional professional development. Teachers were in favor of a more hands-on model where they could learn at their own pace and can experiment. They were also in favor of learning along side their peers (Beauchamp, Burden, & Abbinett, 2015).

Gorder (2008) studied teacher's perceptions of instructional technology integration in the classroom. Teachers need to collaborate and share ideas in order to

implement technology into the classroom. It is not a 'one size fits all;' teachers need to know why and how to use technology in useful ways (Gorder, 2008; Wepner, Tao, & Ziomek, 2006). Summer professional development is recommended for teachers to focus on technology integration (Gorder, 2008).

One study that focused on implementing a multimedia project put teachers through a professional development with several activities. These activities were planned and implemented through teachers and technology learning coordinators (TLCs) (Simkins, Cole, Tavalin, & Means, 2002). These coordinators are teachers on special assignment that arrange dinner meetings, summer trainings, teacher work days, and other activities all based on the needs of smaller groups of teachers (Simkins, Cole, Tavalin, & Means, 2002). Teachers are more confident in implementing technology if they have professional development with other teachers.

Barret-Greenly (2013) conducted research on the impact of professional development on teacher practices and beliefs with technology in the classroom. Teachers receiving professional development increased their comfort levels and skills. Studies also discovered colleague collaboration showed great benefit to teachers learning new technology strategies (Barret-Greenly, 2013; Efaw, 2005). Professional development should provide demonstrations with teachers who are experienced in technology, provide classroom management tips, provide suggestions for addressing technical issues, and demonstrate technology lesson ideas and applications.

These studies agree that teachers need professional development in order to implement technology into the classroom. Teachers should not be expected to implement technology with a one-day or weeklong summer training; they need a collaborative

professional training (Brandt, 2000). Considerable studies also suggest working with colleagues to help implement technology. The use of a mentor or coach can guide teachers to implementing the appropriate technology.

Teacher Beliefs

Avoidance of technology use in the language arts classroom is predicated on teacher beliefs that reading and writing are a matter of more and better practice of those skills. The use of technology for this purpose is antithetical to the development of reading and writing, and may even distract from that goal. Teachers have misconceptions about the affordances of technology. Cope and Ward (2002) showed that even experienced teachers might have misconceptions about the affordances of technology. These teachers had little professional development and expressed doubt about the benefits of using technology in the classroom. They may not use the technology that students find encouraging in their learning approaches. At the same time these teachers recognize that a student-centered approach needed some use of technology. Professional development can be foundational in developing teachers' attitudes towards technology integration. These learning technologies should be perceived as learning tools helping students use deeper learning strategies (Cope, & Ward, 2002).

Miranda and Russell (2011) advise that some possible predictors of technology avoidance have a relation with experience, belief in technology, importance of technology, and experience with problems with integration. Teachers who believe technology is beneficial are more likely to implement technology into their classroom. They also found that teachers with experience and confidence with technology is relevant in integrating technology. A teacher with technology experience and the belief that it is

beneficial allows more confidence in their integration of technology into their classroom (Miranda & Russell, 2011).

Palak and Walls (2009) imply that teachers use technology more for preparation, management, and administrative purposes. They state that teachers' attitudes toward technology are the most significant predictors for teachers implementing technology (Palak & Walls, 2009). They suggest that technology integration needs to focus on student-centered pedagogy.

Bokhurst and Ersoy (2015) study established teachers' needs to overcome their bias against technology and being open to new innovations. They observed teachers continuing to use traditional methods and not accepting the innovations of teachers around them. They were reluctant to use the interactive whiteboards in their classrooms, and consequently, did not see the need for change.

These studies advocate the necessity for teachers to implement technology into their language arts instruction more intentionally. Teachers need to believe that technology can be integral to student learning. In order to do so, they must fold technology into their positive beliefs. A lack of strong beliefs about this principle makes it more likely that the use of technology will be minimized.

Administration and Teacher-Teacher Support

Another area that supports teachers' motivation to use technology in the area of language arts is support from administrators and teacher-teacher support. Gorder (2008) asserts teachers learn technology along with their students. Administrators should encourage collaboration among teachers to share ideas and teacher strategies in order to implement technology into the classroom (Gorder, 2008). Miranda and Russell (2011)

claim principals need to be trained as well. Administrators also need to be aware it takes time to implement, play, plan, and prepare technology into the classroom (Gorder, 2008).

Bozhurt and Ersoy (2015) suggest that teachers should work to overcome their bias against technology. The acceptance of new technology takes time and teachers should be encouraged and guided by administrators and colleagues (Bozhurt & Ersoy, 2015). Teachers need vision and guidance from their colleagues. They also found that teacher trainings are more meaningful when taught by teachers who actually use the devices.

Miranda and Russell (2011) found administrators' understanding of the use of technology could influence its use. It affects teachers' beliefs about technology and the pressures that teachers put on using technology in the classroom. Schools which have funding and access to technology may not use technology if they are not supported. Teachers who are advanced with technology ask for assistance. When hiring teachers, this study suggests looking for teachers who place a greater emphasis on technology experiences.

As stated before in a multimedia project by Simkins, Cole, Tavalin, and Means (2002), they used Technology Learning Coordinators (TLC) designated with teachers on special assignment. They supported teachers at their schools and district in order to support them in their multimedia learning. They believed that support needs to be more than technical, meaning it should be from a teacher that can not only set up your scanner, but can also show you how to organize the scanning process to maximize student learning (Simkins, Cole, Tavalin, & Means, 2002). The TLC model undoubtedly supports teachers in the use of technology and supporting one another with the implementation process.

These studies advocate the importance of having support from administrators and colleagues in order to implement technology in the classroom. Without the support of their staff, teachers are less likely to be motivated to integrate technology into their language arts instruction. As a result, technology-phobic teachers will be inclined to maintain their biases regarding technology use in the classroom.

Connection to the Literature

A number of major contributions support the body of knowledge that is being reviewed in the motivational factor of elementary teachers with the use of technology. Studies found teachers' needs are relevant to professional development in order for teachers to get hands-on experiences, as well as plan instructional activities with these devices. Other literature suggests that teachers need to have a substantial acceptance in the benefits of using technology in the classroom. Lastly, the literature suggests teachers need support from their administrators and colleagues in order to fully implement and use technology to the students' advantage.

The literature strongly suggests if a teacher has support through professional development, a robust belief system, and support from administrators and colleagues, then a teacher has a greater chance of motivation with the use of technology in the classroom. However, some of these studies had limitations in applicability to this study in that they were based on technology as a whole and not technology within the Teachers College Reading and Writing Project. Some studies examined multimedia projects, reading programs, and tutoring programs. Some of these studies focused on one device rather than technology as a whole. These studies were beneficial for teachers' technology

needs, but does not state their motivation in using technology in the Teachers College Reading and Writing Project.

Conclusions

Some teachers neglect implementing technology into their classroom. This study is specifically based on using technology to instruct in the Teachers College Reading and Writing Project. The literature suggests teachers need several scaffolds in order to implement and feel comfortable with technology in the classroom. They need professional development that supports their learning and is beneficial to transfer back into the classroom. Teachers need professional development taught by other teachers using technology. They need hands-on experience and time to plan lessons using technology. Teachers also need to believe technology is a beneficial tool to help foster learning. Without this view, teachers are less likely to implement the use of technology. Lastly, teachers need to have the support from administrators and colleagues in order to fully implement the challenges of using technology in the classroom. This literature will help to answer the research question: to what degree are elementary school teachers motivated to use technology to instruct students in the Teachers College Reading and Writing Project? The next chapter is the methodology of a survey at Apple West Elementary School to answer the research question.

Chapter 3- Method

Increasingly, teacher use of technology in the classroom is stressed, but many teachers have not embraced the concept. Teachers tend to use technology more for preparation, management, and administrative purposes instead of student centered practices (Palak, & Walls, 2009; Cuban, 2001). The research question being answered is: to what degree are elementary school teachers motivated to use technology to instruct students in the Teachers College Reading and Writing Project? Conducting a study to view teachers' motivation with integrating technology into the Teachers College Reading and Writing Project (TCRWP) will help to determine teachers' perceptions about using technology with this program and their needs in order to integrate technology.

There have been many studies about using technology in the classroom, but this study will focus primarily on teachers' technology use within the TCRWP. This research will use a combination of quantitative and qualitative research methods to examine teachers' motivation in using technology in TCRWP. The research will focus on the teachers at Apple West Elementary School in California through a survey. The survey asks multiple-choice questions, five-point Likert Scale questions, questions that allowed participants to choose all answers that applied to them, and one constructed response question. The participants were asked a series of questions relating to their technology use in their language arts instruction. The survey design methodology is an appropriate match for this study because the results will show how teachers feel about technology in the TCRWP and what they might need in order to incorporate technology in their language arts instruction. Creswell (2007) points out that survey design identifies important beliefs and attitudes of individuals. Through this survey, Apple West will be

able to identify their beliefs and attitudes towards technology within their TCRWP instruction.

Throughout the methodology portion, this study will address the participants within the setting, the instrument, the procedures, an analysis of the data, and a conclusion. This study has been developed from the technology need at Apple West and their emphasis on their language arts program. The instrument used in this study used modified survey questions from Ruggiero & Mong (2015), but these questions were adapted to fit with the use of technology in the TCRWP.

Participants/Setting

Participants in this study include Apple West teachers that are using TCRWP. In order to maintain confidentiality, Apple West is a pseudonym for the school that was being researched. Apple West is a Title I school with 458 students in grades kindergarten through fifth grade. Of the students, 27% are English Learners and 13% are students with disabilities (Ed Data, 2017). This school is located in a middle-income suburban town with a population of about 35,500. The school has one resource specialist teacher and one special education teacher. There are eighteen general education teachers ranging in teaching experience. Apple West implemented the TCRWP in 2009 through the interest of several teachers. The following year, in 2010, the school applied to become a Teachers College School, which provides access to the entire curriculum, and has Teachers College staff developers from the program coach teachers in TCRWP. The Teachers College staff developers come to Apple West twice a year to work with each grade level teachers. This study is focused on Apple West teachers because this school uses TCRWP curriculum and model, and technology integration is a great need at this

school. The teachers were selected through convenience sampling due to the specificity of their program and the location of the school. The teachers at this school have two computer labs on site, a Promethean Board in every classroom, three carts of twenty Dell laptops, and two carts of twenty iPads®. Each teacher is equipped with the entire TCRWP curriculum as well as individual classroom libraries with a vast amount of leveled student books. They have the technology apparatus at their school to incorporate technology into their TCRWP, but oftentimes these devices are neglected.

For the purpose of this research, permission from the school's principal was granted first. The study's gatekeeper letter allowed the principal to understand and be aware of the parameters (Appendix A). Once permission was granted, the survey was emailed to the eighteen participants. The survey has a letter of consent on the first page of the Google Forms. The participants had to accept the terms before continuing to the first survey question. The consent allowed the participants to understand the purpose, right to withdraw, procedures, and benefits of participating (Appendix B). The principal received the survey beforehand for final approval before emailing the Google Forms link to all participants. This allowed the researcher's identity to remain undisclosed therefore reducing any bias towards the researcher.

Since the survey was digital, participants could respond at their convenience. This allowed the participants to feel comfortable in their own environment. The researcher was not present while the participants filled out the survey, allowing the participants to respond candidly, and ensure the responses are valid. "Surveys help identify important beliefs and attitudes of individuals" (Creswell, 2014 p. 376)

Instrument

The teachers participating in this study were given a mixture of survey questions adapted from the technology survey by Ruggiero & Mong (2015). The researcher adapted the questions to suit the scenario in which the TCRWP is used (Appendix C). Several of the survey questions were adapted to refer to the technology available at Apple West. The survey had multiple-choice questions, five point Likert Scale questions, choose all that apply, and one constructed response question.

The survey questions numbered one through four collected the demographics of the teacher including age, grade level, years of teaching experience, and years of teaching experience at Apple West. Questions numbered five and six requested the years the participants had been teaching the TCRWP and how many times they had been to the New York training. This will give the research the number of participants that have been trained and the level of experience in using the curriculum. Question seven collected the participants' perceptions of the effectiveness of the TCRWP method of teaching language arts. This data will show the participants' disposition towards the language arts curriculum.

Survey questions numbered eight through thirteen answered the research question within the teachers' motivation to integrate technology into the TCRWP instruction. Question eight presented the participants' beliefs about technology enhancing the TCRWP. As a counter question, question eleven presented the participants' beliefs on using technology in other subject areas other than language arts. This data will present the findings if Apple West teachers have different feelings about technology within language arts or other subjects. Questions numbered nine and ten revealed the type of digital tools the participants are using to integrate technology into their language arts

instruction and how often. The participants also identified what affected their ability to integrate technology into their language arts in question twelve. Question numbered thirteen presented what would be most helpful for more integration of technology. Lastly, the final survey question is a constructed response that addresses the participants' thoughts on an effective professional development that would influence them to incorporate technology in the TCRWP.

Survey questions are an appropriate instrument to examine Apple West teachers' perceptions of using technology in the TCRWP. It presents the technology tools that are presently being used and their thoughts on how to integrate more technology in the TCRWP. Lastly, it helps to answer why teachers are not using technology in their language arts instruction.

Procedure

Once approval was granted from the principal, the study began. The participants were sent the survey with the Google Forms link by the principal. The participants gave their consent and began the survey at their convenience. Once a majority of the teachers had taken the survey, the researcher analyzed the results through the Google Form and transferred the data to Microsoft Excel. The results were represented in pie charts and bar graphs, which is visually appealing to answer the research question. The single-constructed response question was coded for themes by copying and pasting the participant's responses in a Microsoft Word® Document. The coding searched for common phrases and these phrases were placed into similar categories. The research was presented to the stakeholders with charts in a Microsoft PowerPoint® presentation. The

stakeholders were requested to pose questions, concerns, and comments throughout the presentation.

The principal investigator is an insider through this study because I work at the same school as the participants. I also teach second grade and work closely with some of the participants. I use technology regularly in the TCRWP.

Analysis

Once the majority of the participants had completed the survey within the time frame, the data was collected. The data was transferred into Microsoft Excel® in order to make graphs based on the participant's responses. The answers required manual cleaning in order to portray a clear graph of the data. The last question of the survey was a constructed response. These answers were copied and pasted into a Microsoft Word® document. This allowed the researcher to start the open coding procedure. The responses were coded for themes that help answer the research question. Participants' quotes were coded to fit under each theme.

The analysis is grounded in the Epistemology framework. This framework is based on the belief that in order to gain knowledge, one must have truth and belief in what one is learning. This framework was chosen for this study because in order for teachers to have motivation to integrate technology into their TCRWP instruction, they need to have the belief that there is a need for technology. This will validate the findings of the research through the data collection and the coded themes of the research.

Conclusion

The participants are the teachers from Apple West who have adopted the TCRWP in 2010. A survey was conducted to indicate the teacher's motivation to integrate

technology into their language arts instruction. The survey was cleaned, analyzed, and displayed in graphs to present the findings relating to the research question. This research shall indicate reasons why teachers neglect the use of technology in the TCRWP and what they need in order to further their technology integration. These findings were presented to stakeholders at Apple West and the school district's technology department.

In the next chapter the description of the tools and survey will be addressed. The analysis of the quantitative data will be focused on in great detail.

Chapter 4- Data and Analysis

Technology in the classroom has become an increasing factor in our schools today. Teachers are presented with a wide range of technology, ranging from iPads®, laptops, SMART boards®, and similar devices. School districts are spending money on this equipment in hopes that teachers are using it in their classrooms. Curricular materials for language arts are being chosen by school districts that may not have a technology component. Columbia University's Teachers College has developed the Reading and Writing Project and teachers are questioning how to integrate technology into their program. The investigation in this research study is: to what degree are elementary school teachers motivated to use technology to instruct students in the Teachers College Reading and Writing Project?

In this chapter, the description of the tools and survey will be addressed. The analysis of the quantitative data will be analyzed through figures as well as a narrative of each survey question. The process of cleaning the data and open coding for the themes in the last question of the survey will be described in great detail. The qualitative data will also be analyzed for this question.

Instruments

A cross-sectional survey was chosen for the data collection due to time constraints. It also allowed participants to remain anonymous. This survey examined the technology tools teachers were using in their classroom within their language arts instruction as of April 2017. This survey was adapted from a previous survey from the research project: *The Teacher Technology Integration Experience: Practice and Reflection in the Classroom* (Ruggiero, & Mong, 2015). The survey was adapted with the

integration of technology in the language arts instruction. The survey was modified to answer questions related to the Teachers College Reading and Writing Project (TCRWP). There were four different types of questions: multiple-choice, choose all that apply, five-point Likert scale, and one constructed response. The survey was constructed on Google® Forms and sent to the principal at Apple West. The principal emailed the survey to the teachers at Apple West. The researcher did not send out the survey due to possible bias.

Once the data was collected it was processed into Microsoft Excel in order to analyze the quantitative data. After examining the data, there were several sets of data that needed to be cleaned in order to get a clear graph. The first set of data that needed to be fixed was the grade level short answers from question two. Some participants wrote out the grade level or wrote orthographies. The numerical grade level represented the grade levels. For example, 3rd grade was fixed to represent 3. Another set of data that was fixed was question one, which was the age of each participant. If the participant's age was the exact number, the pie chart would have sixteen different pieces. Therefore, each number was given an age range. The age number was automatically represented in the tens place. For example, if someone said they were 39, it was changed to 30. This way the data was represented based on the age range.

The next sets of data that were cleaned were question four, five, and six: the number of years teaching at Apple West, the number of years teaching the TCRWP, and the number of years trained in New York. Some participants wrote out the number of years or wrote less than one year. Some participants added the label "years" to their years of teaching. For example, someone teaching for four years wrote "four years"

instead of 4. The numbers were represented with a clean number. For teachers who were teaching for less than a year, they were represented with '<1'. When looking at the data for years of teaching experience, the data was chosen in ranges versus the actual number of years. The teaching experience range that was chosen was less than ten years, ten to nineteen years, twenty to twenty-nine years, and thirty plus years. The years were chosen in increments of ten. The data for years of experience at Apple West was organized based on increments of five in order to show the range of years.

All the quantitative data was processed into bar graphs and pie charts. In order to do this, the data was organized by the number of responses for each category. For example, figure 5.1 shows seven people were in their 50s, so one column was the age range (50s) and the other column was how many participants were in that age range (7). This allows the data to present the percentages of the amount of participants that had the same responses.

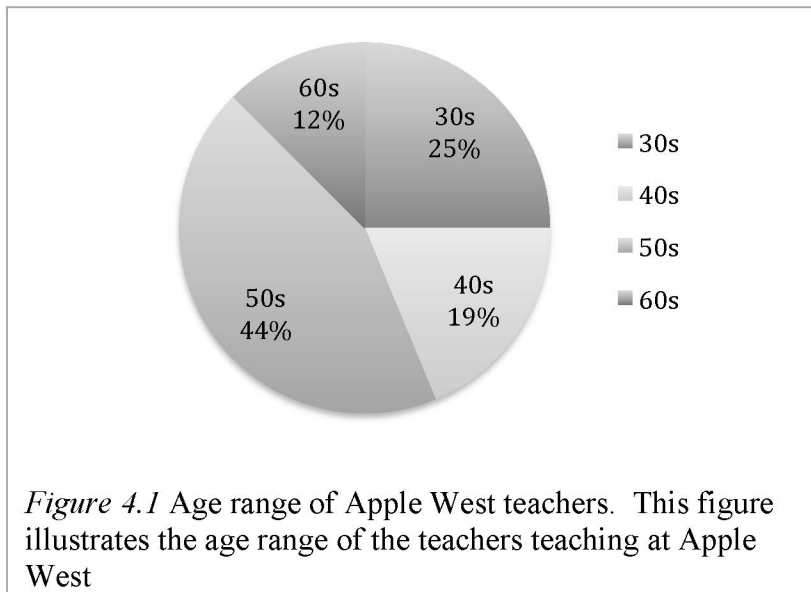
Table 5.1 Age of Apple West Teachers. This table illustrates the age ranges of the participants and the number of people that are of that age range.

Age Range	Number of Participants
30s	4
40s	3
50s	7
60s	2

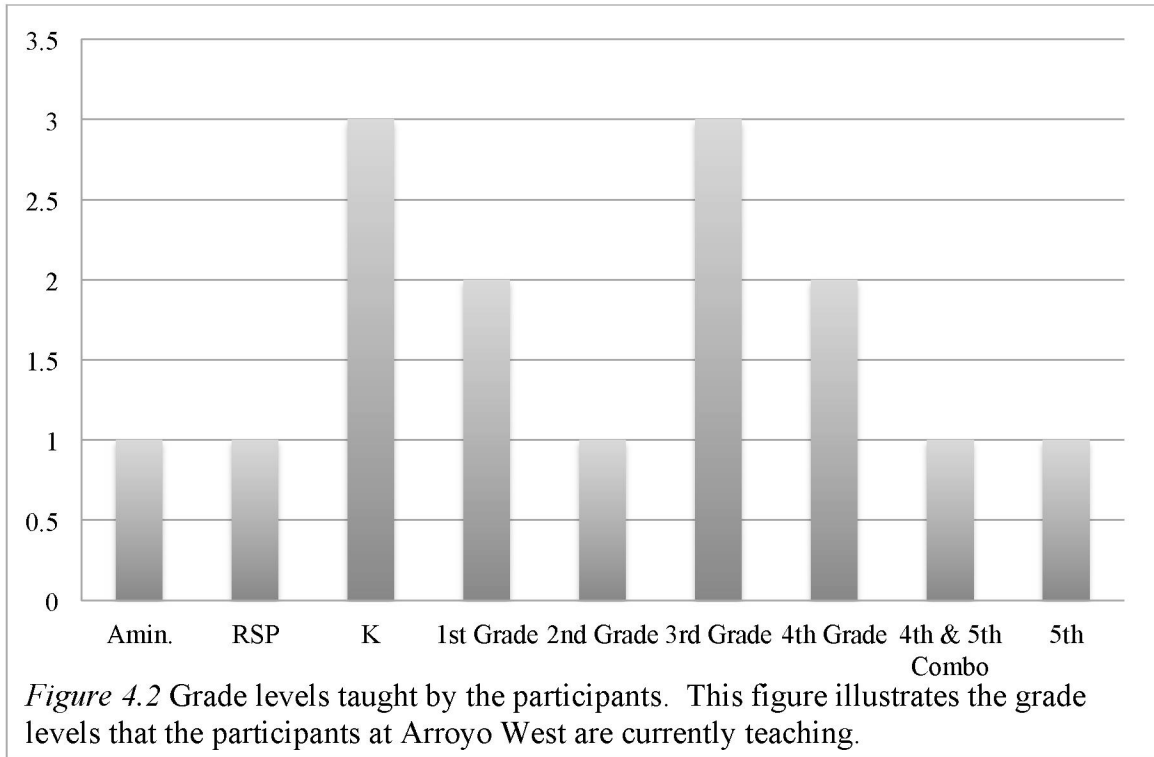
Quantitative Data Analysis

The first sets of questions were demographic questions. Question one analyzed the participant's age range in figure 4.1. From the data Apple West has 82% of their teaching participants above the age of 50. This school has 19% of teachers in their 40's

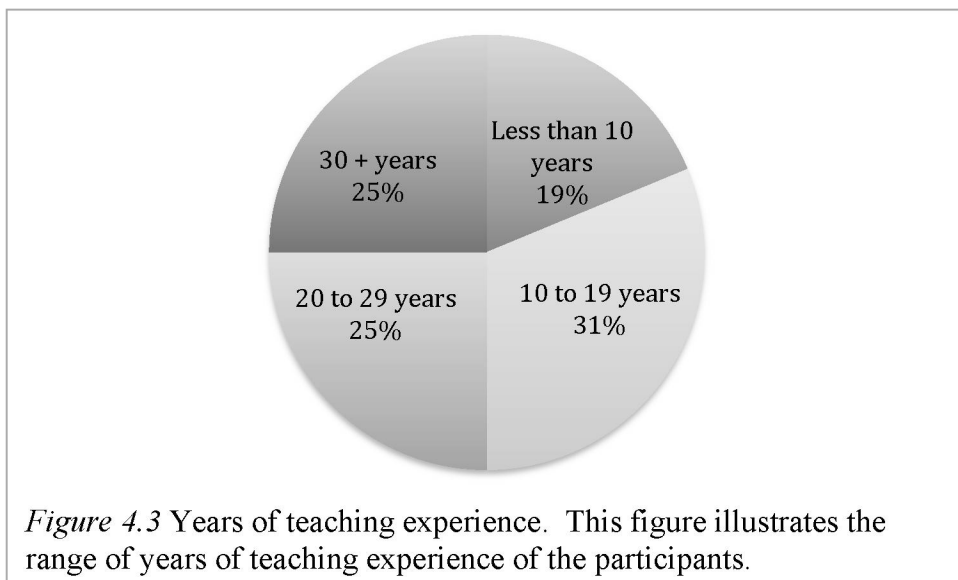
and one fourth, 25%, of their teachers are in their 20's. Only 12% of participants are in their 60's.



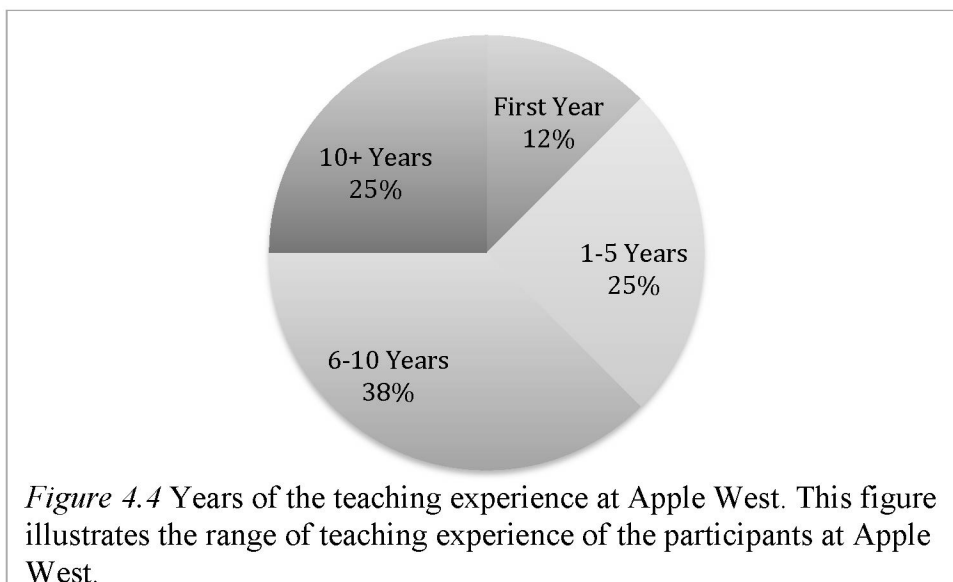
Next, question two examined the grade levels taught by the participants in figure 4.2. The participants represented each grade level at the school from kindergarten through fifth grade. There was also one administrator and one Resource Specialist (RSP) teacher that participated in the survey. Of the eighteen general education teachers, thirteen teachers responded. The only special education representation was the RSP teacher. At the time of the survey administration, the administrator and the RSP teacher did not teach the TCRWP everyday with a full classroom. There were three kindergarten teachers, two first grade teachers, one second grade teacher, three third grade teachers, two fourth grade teachers, one fourth-fifth combo teacher, and one fifth grade teacher. There were six primary teachers (grades K-2) and seven upper elementary teachers (graders 3-5).



The next demographic survey question in figure 4.3 was based on question three, which revealed the years of teaching experience. This figure shows that 50% of the participants have been teaching for more than twenty years, 31% percent of the teachers have been teaching for ten to nineteen years, and 19% have been teaching for less than ten years. This graph gives an appropriate reference for the years of teaching experience at Apple West.

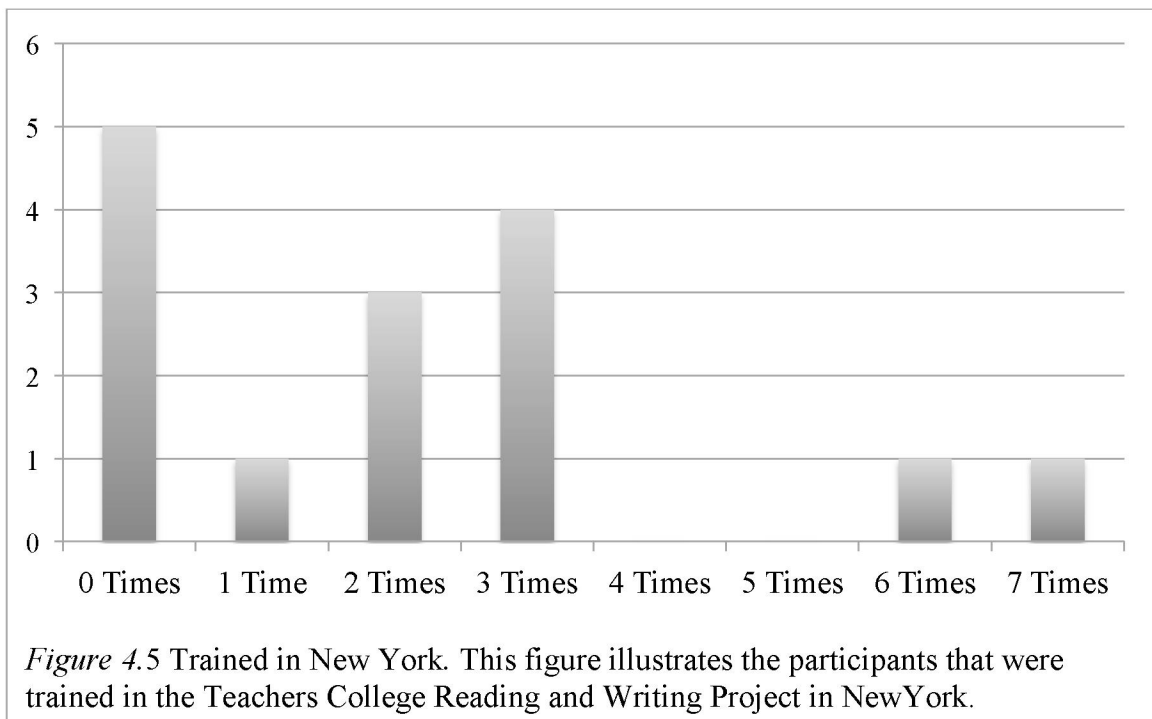


Question four from the survey in figure 4.4 examined the years of teaching experience at Apple West. Twelve percent of the participants are in their first year of teaching at Apple West. Looking at the previous graph in figure 4.3, this does not signify that they are first year teachers, but first year teaching at Apple West. They could have taught at another school or taken several years off of teaching and placed at this particular school. Twenty-five percent of participants have taught at this school for one to five years. Thirty-eight percent of teachers have taught for six to ten years, and 25% have taught for ten or more years. Sixty-three percent of teachers have been teaching at Apple West for more than six years. This shows a range of teaching experience at Apple West.

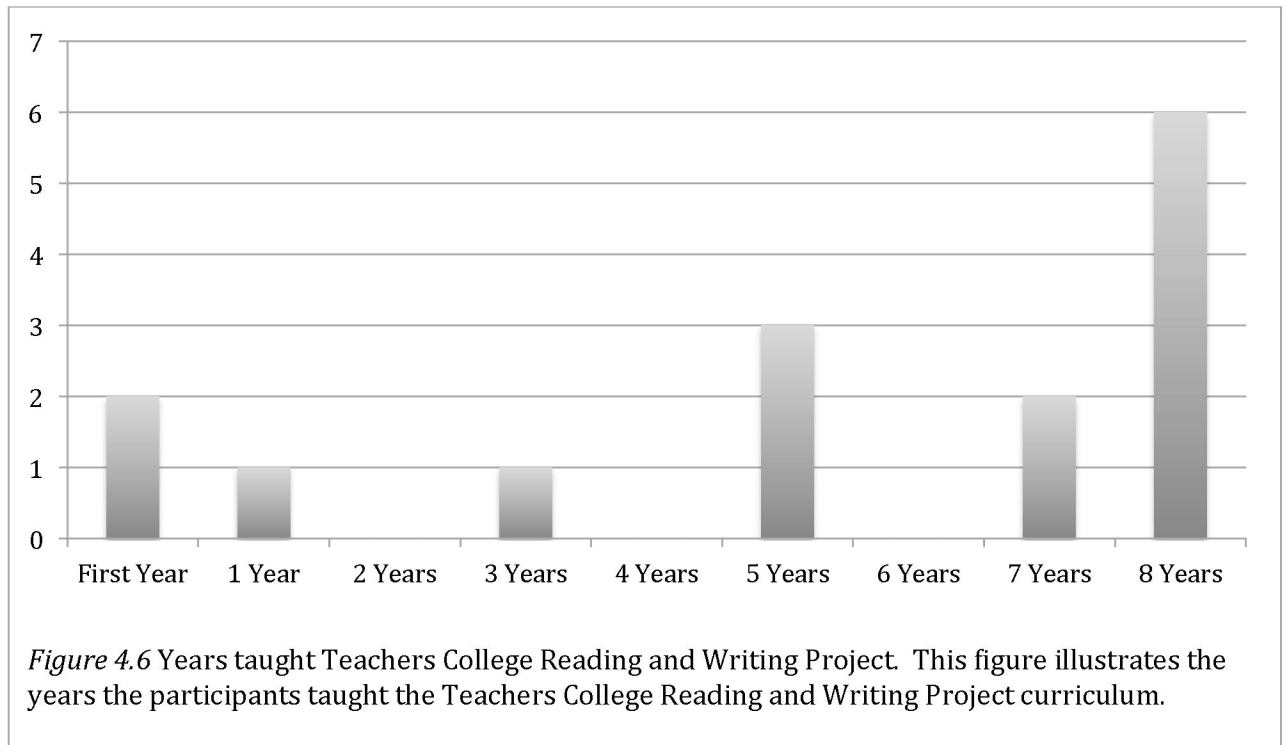


Question five examined how many teachers have been trained in the TCRWP, the range is widespread in Figure 4.5. The bar graph shows that five participants, 31%, have not been trained in the weeklong New York training. This is a large range of teachers based on the previous 12% of first year teachers at this school. This suggests that several teachers have not been taught in TCRWP within their first few years at Apple West. One participant has been trained once. Three participants have been trained in New York two

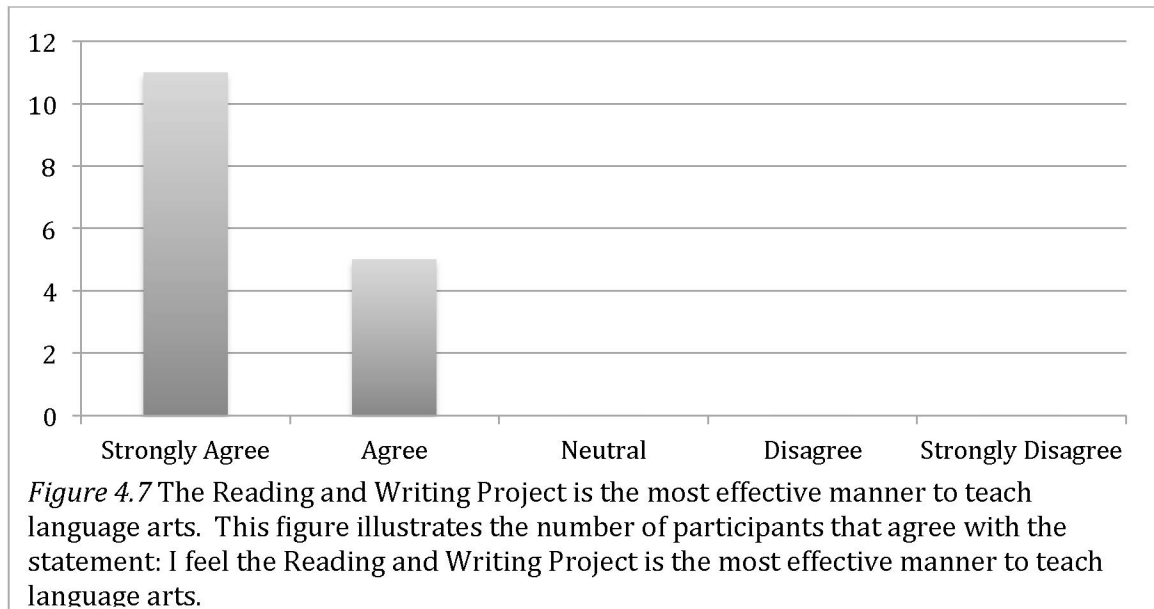
times, and four participants have been trained three times. The remaining two participants have been trained six and seven times.



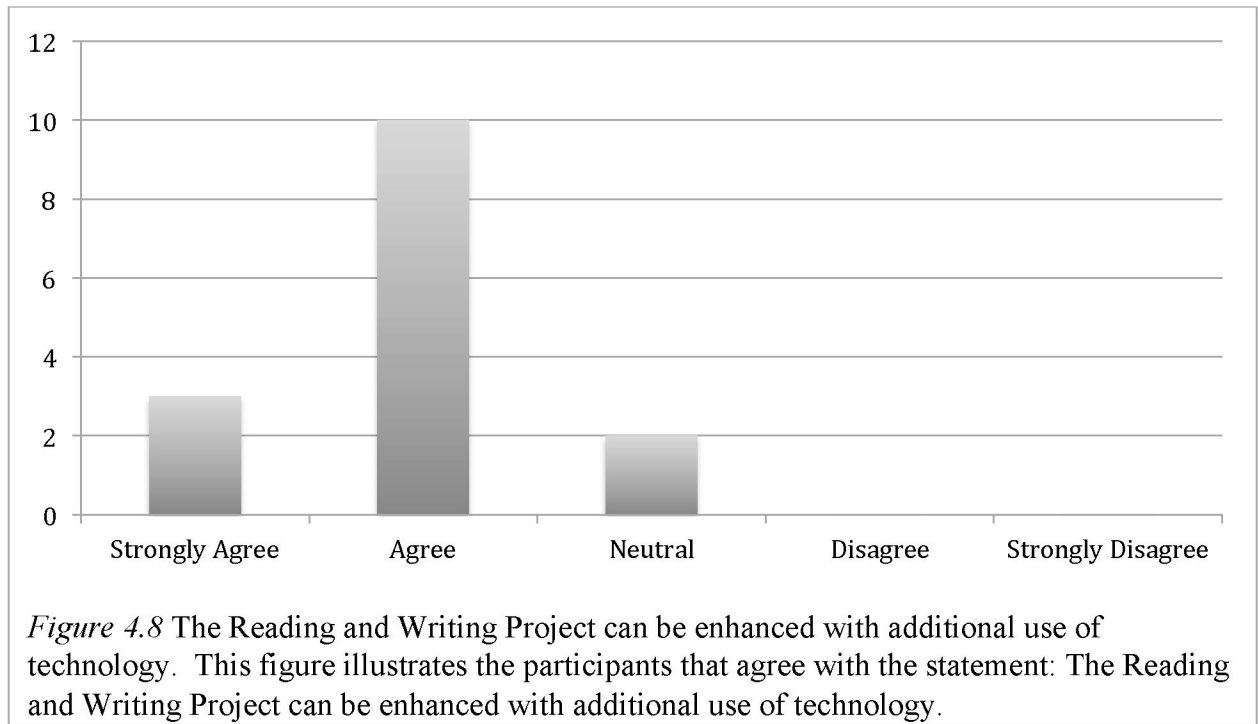
The next set of data that was evaluated was question six, the number of years teaching the TCRWP. This data is represented in figure 4.6. This project was first launched at Apple West eight years ago and was fully developed as a Teachers College School seven years ago in 2009. This school had 37% of their participants teaching this program since it first started at their school. Two more participants joined them when they became an official Teachers College School seven years ago. Three participants had been teaching this program for five years, whereas one participant has taught the program for three years. There was one participant who had been teaching the program for one year, and two teachers were in their first year of teaching the TCRWP.



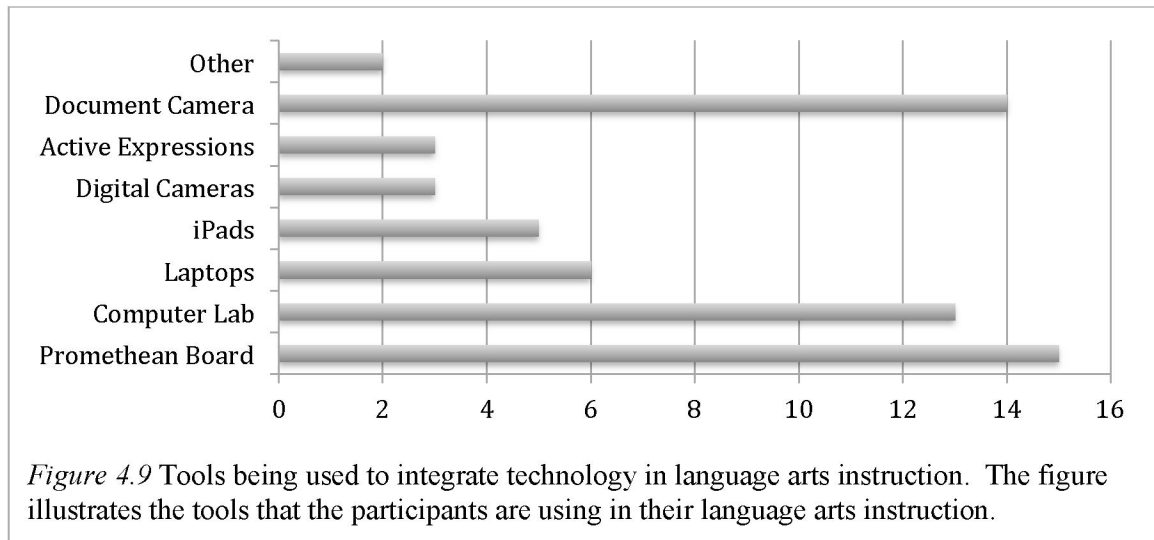
The next set of data examines the use of technology. Figure 4.7 presents the statement from question seven, “To what degree do you agree with the following statement: I feel that the Reading and Writing Project is the most effective manner to teach language arts”. All sixteen participants agreed that the TCRWP is the most effective way to teach language arts to elementary school students. Eleven participants, or 68%, strongly agreed with this statement, whereas 31% simply agreed. There were zero participants that disagreed with TCRWP being the most effective manner to teach language arts.



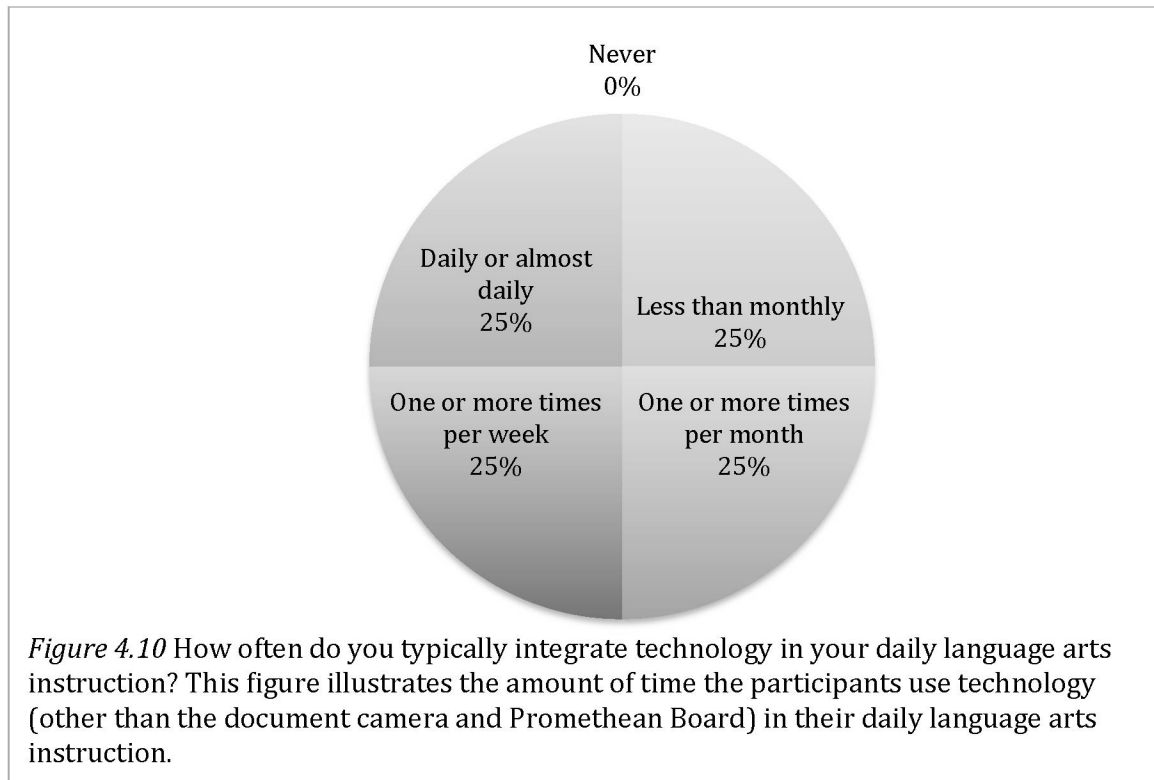
Question eight stated, “To what degree do you agree with the following statement: The Reading and Writing Project can be enhanced with additional use of technology”. Figure 4.8 shows thirteen participants, 81%, expressed that technology could enhance the TCRWP. Three participants strongly agreed and ten participants agree that technology could enhance TCRWP. Two participants neither agreed nor disagreed with this statement. Zero percent of the participant disagreed that technology could enhance the TCRWP.



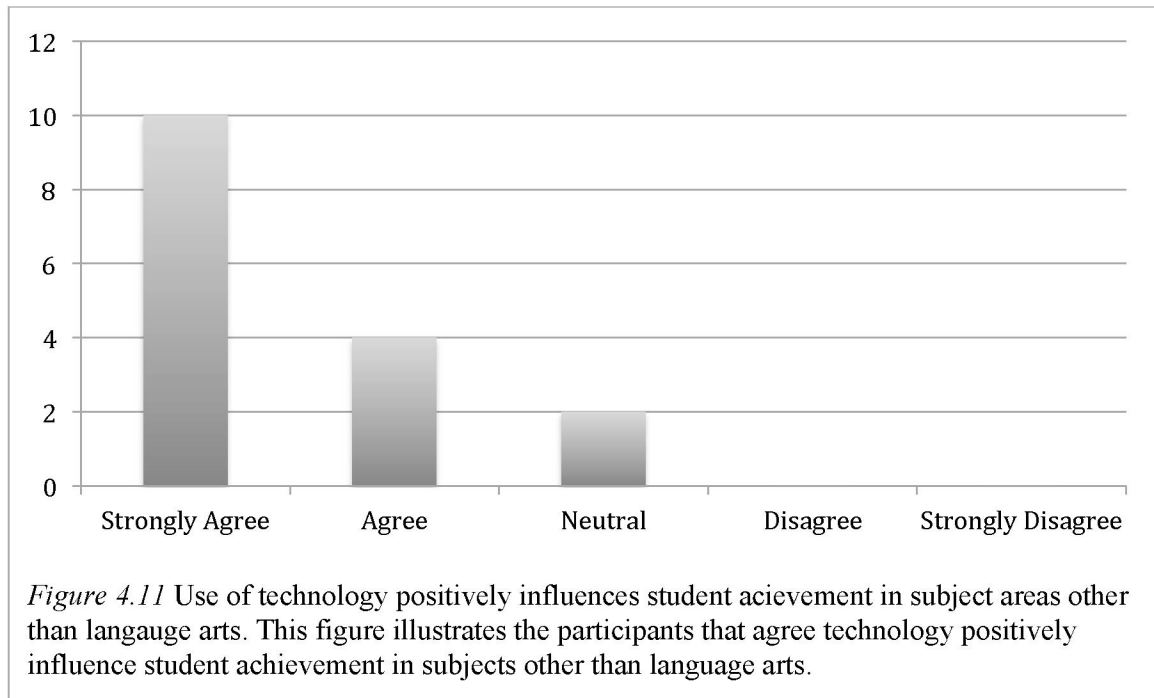
Question nine asked, “What tools are you using to integrate technology into your language arts instruction? (Select all that apply)”. Figure 4.9 examines the digital tools the teachers are using to integrate technology into their language arts instruction. Almost all of the participants were using the document cameras and Promethean Boards in their language arts instruction. Thirteen participants were using the computer lab that is offered weekly for fifty minutes. Six participants were using laptops, whereas five participants were using the iPads®. Three participants integrated a digital camera and Active Expressions. Two people used something other than what was listed.



Question ten asked, “How often do you typically integrate technology (more than using the document camera) into your daily language arts instruction?” Figure 4.10 represents the amount of time the participants integrated technology, other than the document camera and Promethean Board, into their daily language arts instruction. This pie chart shows an even spread of technology use. 25% of participants used technology daily or almost daily. 25% of participants used technology one or more times per week. Another 25% used technology one or more times per month, and another 25% used technology less than monthly. None of the participants reported never using technology in the area of language arts. Based on this pie chart, Apple West was completely split on how often they were using technology in their language arts instruction.



Question eleven targeted the participant's feelings of technology positively influencing student achievement in subjects other than language arts. In figure 4.11, 87% of the participants felt that technology does influence student achievement in subjects other than language arts. Specifically, ten participants strongly agreed and four participants agreed that technology could enhance other subject matter. Two participants expressed feelings of neutrality to this statement. Zero participants disagreed with the enhancement of technology in other subject areas.



When examining both the enhancement of technology in language arts and other subjects, the graphs are extremely similar. Figure 4.12 shows both graphs side by side. They both represent 87% of participants strongly agreeing or agreeing that technology can enhance their student learning in both language arts and other subjects. Both graphs have two participants staying neutral in their feelings about technology in all subject areas. The difference between the two graphs shows more participants strongly agree in other subject areas compared to language arts (Figure 4.12a). There were ten participants that agreed that other subjects other than language arts could be enhanced with the use of technology, whereas only three participants strongly agreed that technology could enhance language arts (Figure 4.12b).

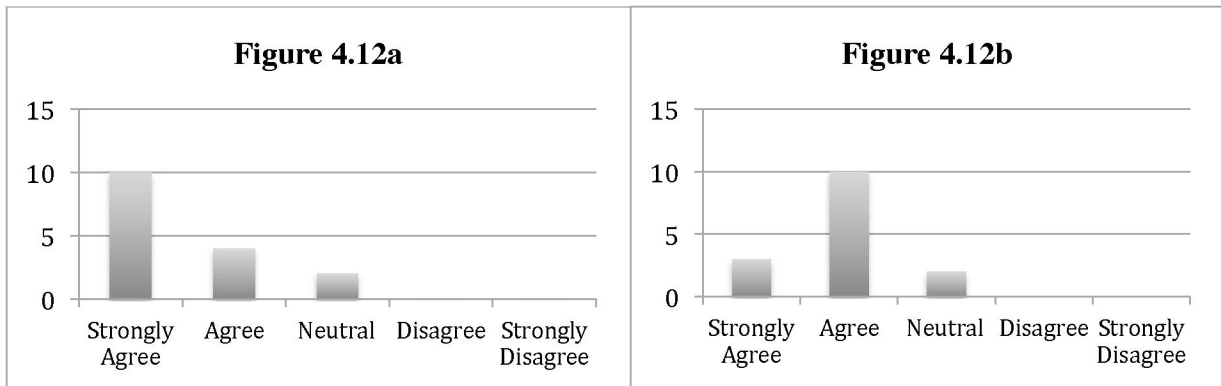
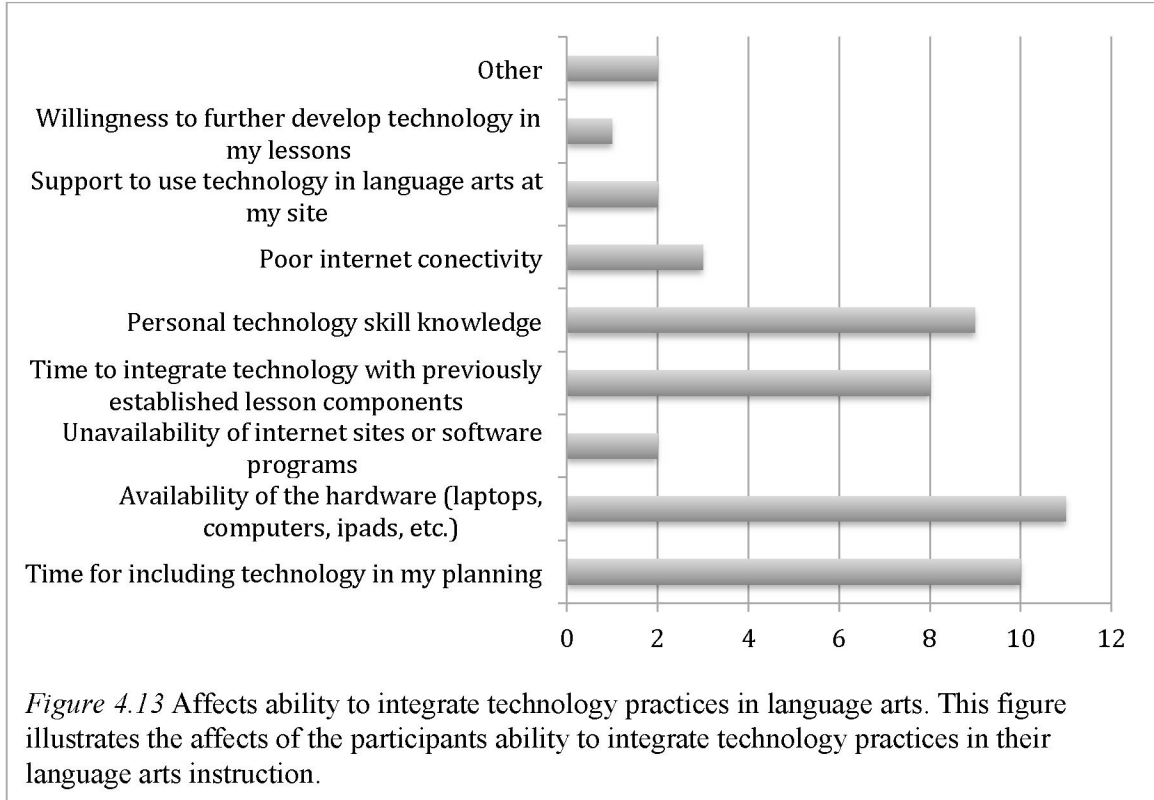


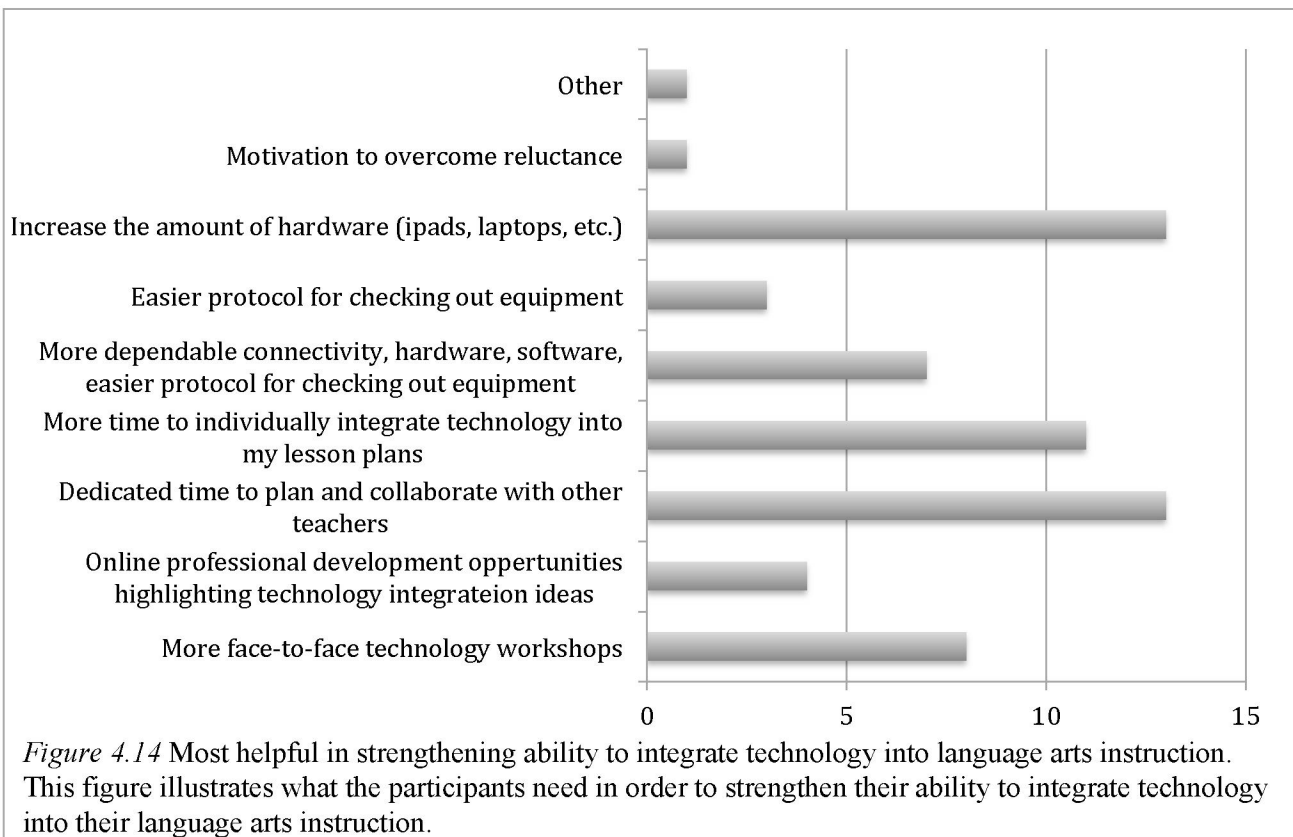
Figure 4.12 Technology can enhance other subject other than language arts and language arts. This figure illustrates the participant’s thoughts on technology enhancing other subject areas other than language arts (Figure 4.12a) and enhance language arts (Figure 4.12b).

Question twelve asked the participants, “Which of the following affects your ability to integrate technology practices in language arts? (Select all that apply)”. Figure 4.13 shows the ability that affects the integration of technology practices in the area of language arts. One participant expressed the willingness to further develop technology into their lessons. This means they don’t have the willingness to integrate technology into language arts. Two of the participants felt they needed more support to use technology in language arts at their site. Three participants expressed poor connectivity. Nine participants, 56%, expressed their personal technology skill level affected their use of technology in language arts. Eight participants, 50%, felt they needed time to integrate technology with previously-established lesson components. Two participants felt the unavailability of Internet sites or software programs affected their ability. The largest amount of participants, eleven or 68%, felt the availability of the hardware (laptops, computers, iPads®, etc.) affected their ability to use technology in the area of language arts. Lastly, ten participants or 62%, felt time for including technology into their planning is a concern



Lastly, question thirteen examined, “Which would you feel would be most helpful in strengthening your ability to integrate technology into language arts instruction? (Select all that apply)”. Figure 4.14 is a bar graph of the participants’ thoughts on what would be most helpful in strengthening their ability to integrate technology into their language arts instruction. One participant felt they would need help with motivation to overcome their reluctance. Thirteen participants, 81%, felt they would need an increase in the amount of hardware (iPads®, laptops, etc.) in order to strengthen their integration of technology. Three participants agreed that they would need an easier protocol for checking out the technology equipment. Seven participants expressed they would need more dependable connectivity, hardware, software, and an easier protocol for checking out equipment. Eleven participants, 68%, felt they needed more time to individually

integrate technology into their lesson plans. Thirteen participants, 81%, felt they needed dedicated time to plan and collaborate with other teachers in order to strengthen their ability. Four participants felt they would need more online professional development opportunities highlighting technology integration ideas. Eight participants, 50%, felt they needed more face-to-face technology workshops in order to strengthen their ability to integrate technology into their language arts instruction. Lastly, one participant feels something other than what was listed would help them with strengthening their ability to integrate technology into their language arts instruction.



Qualitative Data Analysis

The last question that was presented on the survey produced qualitative responses. These responses were coded in an open coded method (Appendix D). The

responses were copied and pasted into a Microsoft Word® Document in order to manipulate and move the responses. The question on the survey was: what would effective professional development look like that would influence you to incorporate the Reading and Writing Project? After reading each response individually, the themes were pulled out of the responses based on the constructed response of each participant. Each idea was copied and pasted under a subheading, which grouped similar responses together.

The themes that were created were: sample videos/projects/lessons, time for collaboration and planning, and technology training with an expert of technology or Teachers College expert. Six participants expressed their need for a sample video, project, or lesson. One participant responded, “sample videos of integration technology and workshop” would be an effective professional development. Eight participants, or 50%, expressed they needed time for collaboration and planning, which became another theme. One participant said an effective professional development would allow “time to collaborate with grade level colleagues to develop lessons where technology and workshop are integrated”. Another theme presented was technology training with an expert of technology or a Teachers College staff developer. One participant said, “grade level time with a tech expert that is willing to brainstorm and work with us to create a tech lesson” would be an effective professional development.

The following chapter will present the conclusions based on all the data that was collected from the survey. Also, the description of the stakeholder’s response from the data presentation will be presented. A proposal for Apple West will be suggested in

order to motivate their teachers to integrate more technology into the TCRWP. Finally implications, limitations, and gaps in this research will be explained.

Chapter 5- Conclusions

Liberman's (2016) stated the following:

Teachers, who are already heavily tasked with stuff to do during any given day, may see the addition of technological tools as one more area to learn, one more thing to implement, often with poor planning on the administrative end. (p.1).

This may be one reason the some teachers teaching the Teachers College Reading and Writing Project (TCRWP) are reluctant to implement technology into their language arts instruction. This specific curriculum is an intense student-centered curriculum that does not have any specification for using technology. The research question that is being answered is: to what degree are elementary school teachers motivated to use technology to instruct students in the Teachers College Reading and Writing Project?

The final chapter of this research project will address the conclusions of the survey in great detail. The feedback from the stakeholders to the survey data presentation will be addressed and incorporated. This chapter will also outline the action research proposal in order to incorporate more technology in the TCRWP. Finally, the gaps and limitations will be addressed for further studies.

Conclusions

The data that was collected from the survey at Apple West Elementary School represents judgments and feelings by the sixteen participants. There are eighteen general education teachers at this school. When comparing the data of the grade levels, one can see that the administrator filled out a survey. The issue that came to light was that the administrator does not actually teach the TCRWP at Apple West, nor did she attend the New York training. Therefore, the question that asks for the number of times one uses

technology in their classroom, the administrator would state that she uses it less than monthly. The question about what affects a teacher from using the technology in their language arts instruction would be a difficult question for someone who is not teaching language arts on a daily basis. Another set of data gathered that may have skewed the overall results would have been collected from the RSP (Resource Specialist) teacher. This teacher teaches components of the TCRWP in her classroom. She works with small groups of students with learning disabilities from first grade through fifth grade, but these students are not being taught the TCRWP curriculum. A RSP teacher would not be using tools like the Promethean Board or document camera in her lessons because she is not teaching to a large amount of students. Those looking that the data should keep in mind that the principal and RSP teacher was not removed from the results. These results were not omitted from the data altogether because these two staff members are essential to the school and their opinions are valued.

The teachers that teach at Apple West have a great deal of teaching experience, but when examining the data of how many years they have taught at Apple West there was, at the time of the survey administration, a large range. The reason for this is because Apple West was established about twenty-six years ago as a third through fifth grade school. Just over nine years ago, this school became a kindergarten through fifth grade school. Several teachers teaching kindergarten, first grade, and second grade came from neighboring schools when the district changed all of the elementary schools into K-5 schools.

As one can see from figure 4.6 of the years of teaching the TCRWP, there are a large number of teachers that have taught the program for eight years. This was the year

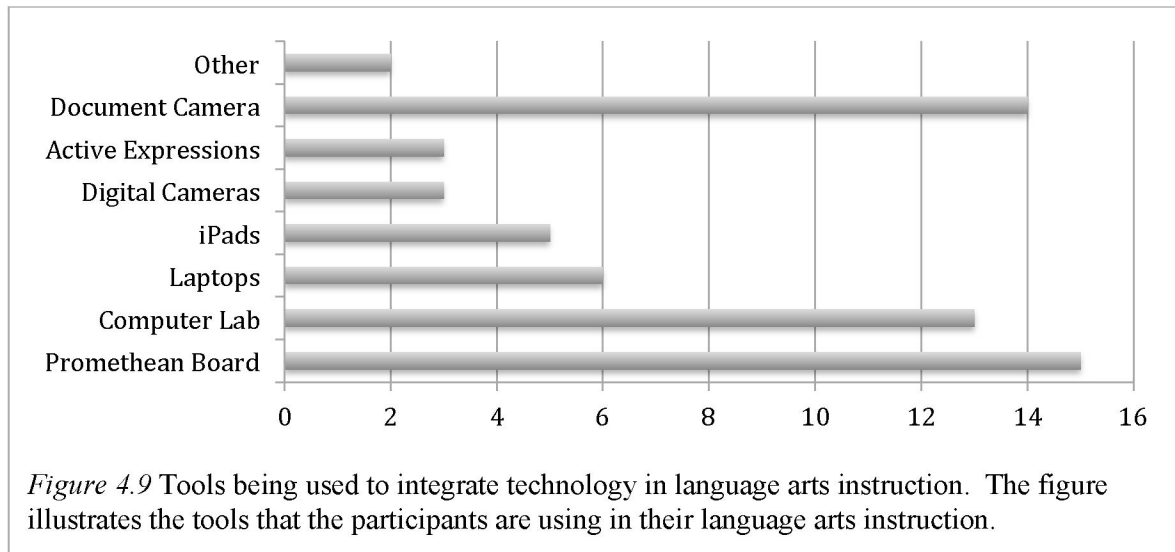
the school started teaching the TCRWP. Seven years ago the school became a Teachers College School, which allowed them to teach the entire curriculum available, as well as have staff developers come to their school and help them teach the program. From personal experience, this program is an intensive program that takes about two years to fully develop and understand the program. Large portions of Apple West teachers have great experience in teaching the TCRWP.

When examining the number of participants who have attended the weeklong New York training at the University of Columbia, there were five participants who had not attended the training. This is alarming because they are teaching a curriculum without proper training. Luckily, these teachers will be attending the training in New York in summer 2017. They have had several trainings with staff developers from the program, as well as retired teachers from Apple West have come to support them in their teaching and learning of the TCRWP.

From the data it is clear that the teachers at Apple West agree that the TCRWP is the most effective manner to teach language arts. A considerable number of teachers also feel that technology can enhance their language arts instruction. There were two participants that felt neutral about the enhancement of technology into their language arts instruction. They may not completely agree, but they do not disagree with technology enhancement in their language arts instruction. This supports the literature review area about teachers' beliefs. The literature suggests that teachers who believe technology is beneficial lead their students to utilize technology more than teachers who do not believe technology is beneficial (Miranda & Russell, 2012; O'Dyer, Russell, & Bebell 2004). The teachers at Apple West believe TCRWP can be enhanced with the use of technology;

therefore they want to utilize technology. There were zero teachers to disagree that technology could enhance their teaching of language arts, which means all of these teachers are using technology or want to use technology in this specific subject area.

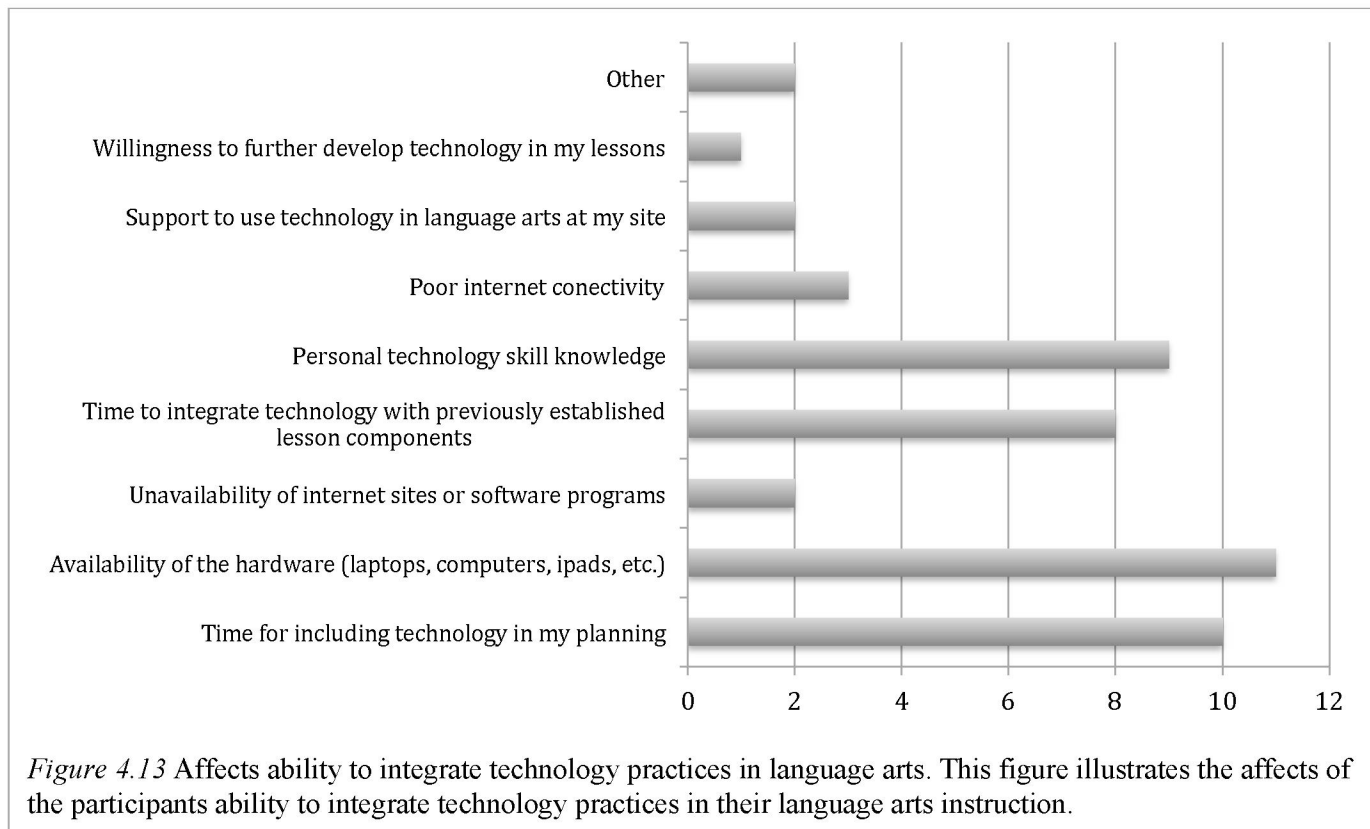
When examining figure 4.9, there is a vast number of participants using the document camera, Promethean Board, and the computer lab. These numbers are extensive because document cameras and Promethean Boards are available for use in every classroom at Apple West. The teachers can use these pieces of equipment whenever they want without a check-out protocol. It is also a great digital tool to show a writing piece or a specific book to a large group of students. After in-depth investigation of the data, it was discovered that the reason all sixteen participants did not select these two pieces of technology in their survey may be due to the fact that an administrator that does not teach the program took the survey, as well as the RSP teacher who does not teach to large amounts of students. The other resource that was used regularly was the computer lab. Apple West is fortunate to have two computer labs on site with about forty computers. Each teacher has a set block of fifty minutes a week with a computer technician in the computer lab. The teacher is supported in the computer lab with a trained expert. The other technology tools in this survey are not readily available for the teachers at Apple West. The laptops and iPads® are in two separate carts at separate ends of the school. Each cart does not have a full class set. Grades fourth and fifth have an average of thirty-five students. Teachers that want to use the iPad® or laptop carts need two carts in order for students to each have their own device.



The set of data that presents how often teachers are integrating technology, besides the Promethean Board and document camera, in their language arts classroom is completely split in fourths. One-fourth of teachers who are using technology less than monthly and a fourth of teachers that are using technology one or more times monthly. This shows that fifty percent of the teachers are not using technology outside of their classroom equipment in the areas of language arts. This proves why the research project was started in the first place. According to this research teachers want to use the technology, but they are not utilizing it.

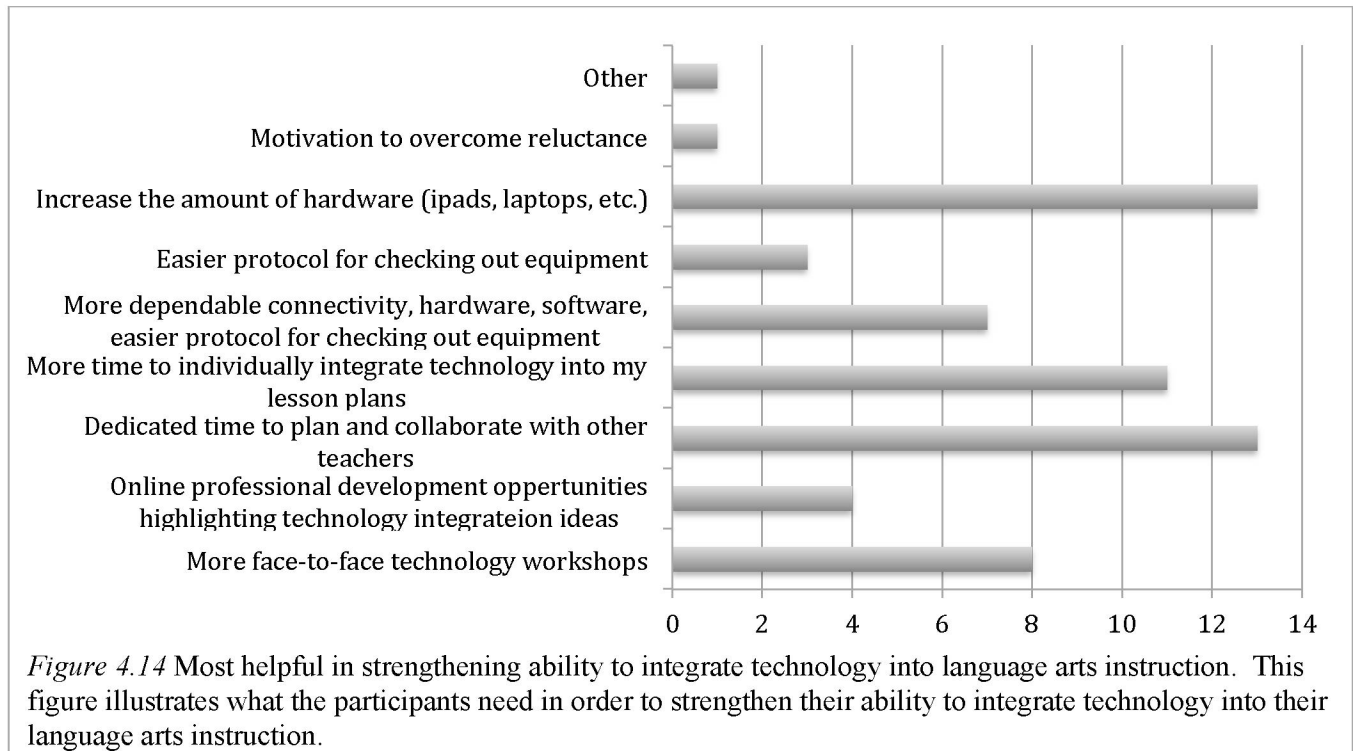
Figure 4.13 supports the teachers' needs in the area of technology. A vast number of teachers agree that the availability of the hardware such as the laptops and iPads[®] would help them with their integration of technology. As stated earlier, Apple West does not have a full set of laptops or iPads in a single cart. In order to have a one device to one student ratio with either piece of technology, the teacher has to check out both carts which are located on two different sides of campus. Another large agreement is teachers feel they need more personal technology skill knowledge and time for including

technology in their planning. Teachers at Apple West also feel that they need more time to integrate with previously-established lesson components. This means that they need to see other lessons from the TCRWP that integrate technology to help them in their implementation.



The last figure that supports the research question is figure 4.14. This graph displays what would be helpful for the teachers to incorporate technology into their language arts instruction. A large amount of teachers agree that the increase of amount of hardware such as iPads® and laptops would help them with their integration. Based on this graph, they also agree that they need more dedicated time to plan and collaborate with other teachers and time to individually implement technology into their lessons. In support of the literature, teachers need a professional development that allows time to

work with their colleagues to integrate technology through sharing and discussing ideas (Gorder, 2008).



Feedback From Stakeholders

The data related to this study's survey was presented to the administrator of Apple West, the Director of Technology at the school's district office, and the researcher's university project advisor. Each stakeholder gave immediate feedback during the presentation.

The director of technology suggested that Apple West inquires the TCRWP for their thoughts on the incorporation of technology into their curriculum. Since Apple West is sending some of their teachers to the training in the summer of 2017, they should ask for support. They could also ask their staff developer when they come to train their teachers next school year.

The principal of Apple West thought it was “interesting that people do not disagree technology could improve workshop teaching”. She also thinks it is important to know what type of hardware the teachers want. The data that was presented was clear to her that the teachers felt they needed more time. Her response was, “Time is clearly a factor. Could we have before school tech training? What would help? Could we require tech be integrated into a learning celebration each year?” Like the Director of Technology, she also thinks that Teachers College should help us with this integration. Her thoughts, “Make tech a focus with our Staff Developers. Could we ask them to come with lessons and ideas on how to integrate. How are other school(s) integrating?”

Proposal

Based on the data collected from the participating Apple West teachers and the feedback from the two stakeholders, there are three solid components that Apple West needs to establish in order to be motivated to integrate technology into their TCRWP curriculum. The teachers feel they need more hardware, time to collaborate and integrate technology, and professional development that incorporates technology into the TCRWP.

To address the first aspect of the proposal, Apple West feels they need more hardware in order to incorporate technology into the language arts instruction. The teachers need to have this conversation and/or fill out a survey based on what technology they would need more of. As of today, Apple West has a total of forty iPads® that are separated into two carts of twenty. They have a total of sixty laptops in three different carts of twenty. In order to meet the needs of the Apple West teachers, they would benefit from a laptop or iPad® cart for each grade level with a full class set. In grades kindergarten through third grade, their capacity of students in a classroom is twenty-five

and grades fourth and fifth have a capacity of thirty-five students. If each grade level had a classroom set of iPads® or laptops, they would have a total of 170 pieces of equipment.

There are currently forty iPads® on the Apple West campus, so in order to have a class set for each grade level they would need 130 more iPads®. The cost of an iPad® is about \$329. When researching on the Apple Inc. (2017) website they have an Educational Price List where they list one iPad at the price of \$299. They have an option of buying a pack of 10 iPads® at the price of \$2,940, which is only a \$50 saving. If Apple West were to buy 130 iPads® the price would be \$38,220.

There are currently sixty student laptops at Apple West. In order to have a class set for each grade level, they would need 110 more laptops. The cost of a Dell laptop that is similar to the laptops they have already is about \$299. If they bought 110 more laptops at this price, it would be \$32,890.

The grand total to incorporate a classroom set of iPads® and laptops for each grade level would be about \$71,110. This is a lot of money for one school to fundraise at one given time. Apple West would not be able to do this all at once. They would need to do this in a phased approach with the help of their district. Each year they should incorporate a cart of technology for their lower and upper elementary grades. Table 5.2 shows the projected amount for each year.

School Year	Upper grade (4th & 5th) 35 students in a classroom	Lower grade (K, 1st, 2nd, 3rd) 25 students in a classroom	Total
2017-2018	35 iPads®	25 iPads®	60 iPads®= \$17,640
2018-2019	35 laptops	25 laptops	60 laptops= \$17,940
2019-2020	35 iPads®	25 iPads®	60 iPads®= \$17,640
2020-2021	30 laptops	20 laptops	50 laptops= \$14,950
2021-2022	5 iPads®	5 iPads®	10 iPads®= \$2,940

Table 5.2 Proposed Hardware Plan. This figure illustrates the proposed implementation of iPads® and laptops into Apple West.

The second aspect of the proposal for Apple West teachers to implement the use of technology into their language arts instruction is both time to collaborate with each other and time for integration. The Apple West teachers have a weekly fifty-minute PLC (Professional Learning Community), one extra hour of PLC monthly, and a one hour staff meeting monthly. These are times that are integrated into the teacher's professional union contract where integration of technology in the TCRWP is possible.

The Apple West administrator has teachers at each grade level write a goal for language arts and a goal for math each year. These teachers incorporate a technology goal for each grade level. These goals will be written into their School Site Plan along with their language arts and math goals. This will hold the grade levels responsible for integrating technology into their classroom. Each teacher sets annual teaching goals for themselves. This is also a great time for teachers to write themselves an individual technology goal.

Each year Apple West should have two staff meeting where they have a Technology Ed Camp. This Technology Ed Camp could have the Apple West staff share and train their colleagues on the technology they are using in their TCRWP instruction. The teachers will be able to collaborate and develop lessons with their grade level teams as well as other grade levels. They will be encouraged to share videos, lessons, and projects that incorporate technology. For the other eight staff meetings, they would dedicate five minutes for a technology talk. Teachers will share successes with technology with their colleagues.

The administrator may need to facilitate and develop this into their agendas. The administrator should also recommend that each grade level PLC after school has two technology meetings a school year. The grade levels will share their technology experiences and have time to develop future lessons that will incorporate technology into their TCRWP curriculum.

Another proponent for this proposal based on the survey and stakeholders' suggestions is the need to have effective professional development opportunities. Apple West already has one technology TOSA (Teacher On Special Assignment) from their district and a Teachers College Staff Developer who comes twice a year for support. The district TOSA should come to the school once a week to assist teachers in their classrooms with integrating technology. The district is already paying for the two district TOSAs, therefore it would not cost the district any extra money. The TOSA needs to have the background knowledge of the TCRWP in order to better assist the Apple West teachers. The Teachers College Staff Developer should help and give the teachers ideas on how to integrate technology into the TCRWP. The teachers and administrator need to

be proactive in asking both of these experts for help with integrating technology into their language arts instruction.

Gaps and Limitations

This research project was developed because of a technology need at Apple West and their particular language arts curriculum. There are thousands of schools across the United States that are teaching with the TCRWP that may have the same need and desire to incorporate technology within this curriculum. This research project had several limitations in that the cost of technology would be difficult for a school district to provide one school with class sets of technology for each grade level. Having the technology budget to work with would also make getting more hardware into classrooms easier. This research was also limited in the number of teachers at the school who were willing to fill out the survey. This research was limited in the amount of teachers who teach TCRWP locally. A larger sample size is recommended for further studies.

There a few changes to the survey that would have helped get a clearer picture. It would have helped not to have the administrator take the survey because s/he does not teach the Reading and Writing Project daily. It would have helped if the administrator were aware of this before the survey was sent out. Also, to improve the survey, a question about what specific hardware teachers feel they would need in order to improve their instruction would strengthen the proposal.

Summary

This chapter presented the conclusions based on the data that was collected. The feedback of the stakeholders was addressed and incorporated into the proposal. The proposal incorporated the needs from the data in order for Apple West teachers to

incorporate technology into their TCRWP instruction. Lastly, recommendations were made through the gaps and limitations of this study.

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Appendix A

Gate Keeper Letter

Principal
Apple West Elementary School

Dear Principal ----,

My name is Katie Scott, I am a teacher at Apple West Elementary School. I am also a graduate student from California State University Channel Islands and I am writing to you for permission to conduct a research study at Apple West Elementary School (AWALA). The purpose of this study is to research teacher's motivation to integrate technology into the Teachers College Reading and Writing Project. AWALA was chosen due to my employment as a second grade teacher. If approved, I plan to have the teachers fill our Google Forms Survey. This study will occur in the spring of 2017. All participants will receive an informed consent form before participating.

Once I have their consent, the research will begin in which the survey will have fourteen questions. Each survey will take approximately 10 minutes to complete. Once the surveys are complete I will then collect the data and transcribe them into graphs. All data will remain anonymous. The results will be reported for my graduate course. Possible benefits may help our technology department and administration with an understanding of what Apple West teachers need in order to be motivated to use technology in the Teachers College Reading and Writing Project. The teacher participation is voluntary and they are free to drop out of the study at any time. Thank you for your time and consideration, I look forward to hearing from you.

Sincerely,

Katie Scott

California State University Channel Islands

Appendix B

Consent Form

Technology Survey Questions

Comfort Levels with technology and The Reading and Writing Project

My name is Katie Strang. I am a graduate student in the Master of Arts, Educational Leadership program at California State University Channel Islands. For my Master's thesis study, I will be conducting a study to examine the degree to which elementary school teachers are motivated to use technology to instruct students in the Reading and Writing Project. Data will be collected through this survey. Then, I will review the data and design a professional development based on your needs.

If you agree to be in the study, I will ask you to complete a questionnaire. It should take about five to ten minutes to complete.

This project is voluntary. There is no penalty or any bad feelings about you if you choose not to be in the assessment. Once you start the assessment, you are always free to stop at any time without affecting your relationship with this school, principal, or district. The information of this project will be kept private. No names will be included in any reports written about the project.

How you answer the questions is entirely up to you. No one other than me and my thesis advisor will review your individual answers or be able to see how you answered the questions. Also, you may skip any questions you do not want to answer.

You may ask questions before, during and after you take part in the assessment. I would be happy to share the findings with you after the research is completed.

For this study, it is expected that participants may experience minimal risks as they participate. People react differently to stimuli, and it is possible that some may react negatively to the study questions. They may also have fear of reprisals if they respond negatively about technology. If you experience any discomfort, you can terminate the process at any time and you have access to Katie Strang and Dr. James Martinez should any issues arise.

The expected benefit associated with your participation is gaining the knowledge of the motivational factors for teachers using technology with the Reading and Writing Project.

If you have any questions about this study, please contact me at (805) 428-3579 or Katie.strang936@myci.csuci.edu or Dr. James Martinez at 805-444-9782 or james.martinez@csuci.edu or James.Martinez@csuci.edu.

For questions or issues regarding your rights as a subject, please feel free to contact the Institutional Review Board (IRB) at 805-437-8496 or via email at irb@csuci.edu.

I would prefer this survey be completed by March 30th, 2017.

Please mark the following box in order to show your consent. You are marking the box with full knowledge of the nature and purpose of the procedures.

Appendix C

Survey Questions

Technology Survey Questions

* Required

1. How old are you? *

Your answer

2. What grade do you teach? *

Your answer

3. How many years have you been teaching? *

Your answer

4. How long have you been teaching at AWALA? *

Your answer

5. How long have you been teaching with the Reading and Writing Project? *

Your answer

6. How many times have you attended the training in New York?

*

Your answer _____

7. To what degree do you agree with the following statement: I feel that the Reading and Writing Project is the most effective manner to teach Language Arts. *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

8. To what degree do you agree with the following statement: The Reading and Writing Project can be enhanced with additional use of technology. *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

9. What tools are you using to integrate technology into your language arts instruction? (Select all that apply) *

- Promethean board
- computer lab
- laptops
- Ipads
- Digital cameras
- active expressions
- document cameras
- Other: _____

10. How often do you typically integrate technology (more than using the document camera) into your daily language arts instruction? *

- Never
- Less than monthly
- One or more times per month
- One or more times per week
- Daily or almost daily

11. To what degree do you feel that the use of technology is positively influencing student achievement in subjects other than language arts? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

12. Which of the following affects your ability to integrate technology practices in language arts?(Select all that apply) *

- Time for including technology in my planning
- Availability of the hardware (laptops, computer lab, ipads, etc.)
- Unavailability of Internet sites or software programs
- Time to integrate technology with previously established lesson components
- Personal technology skill knowledge
- Poor internet connectivity
- Support to use technology in language arts at my site
- Willingness to further develop technology in my lessons
- Other: _____

13. Which would you feel would be most helpful in strengthening your ability to integrate technology into language arts instruction? (Select all that apply) *

- More face-to-face technology workshops
- Online professional development opportunities highlighting technology integration ideas
- Dedicated time to plan and collaborate with other teachers
- More time to individually integrate technology into my lesson plans
- More dependable connectivity, hardware, software, easier protocol for checking out equipment
- Easier protocol for checking out equipment
- Increase the amount of hardware (ipads, laptops, etc.)
- Motivation to overcome reluctance
- Other: _____

14. What would effective PD look like that would influence you to incorporate the Reading and Writing Project?

Your answer

BACK

SUBMIT

Never submit passwords through Google Forms.

https://docs.google.com/forms/d/e/1FAIpQLSehn1_LZeDYMPPforYwoEykt4oTiZMlcXqzehjI-hn15ftyFw/formResponse

Appendix D

Open Coding

Samples (videos) of integrating technology and Workshop. Time to collaborate with grade level colleagues to develop lessons where technology and workshop are integrated.

An opportunity to see sample projects, a time for hands on (make and take) planning, grade level time with a tech expert that is willing to brainstorm and work with us to create a tech lesson, tech training around how to integrate technology into our workshops,

Like Readers/Writers Workshop, I would like a mini lesson and time to try it out on my own before adding more information. Additionally, I just need time: time to familiarize myself with curriculum and teaching methodology for Workshop and time to synthesize new technology with the latter methodology.

PD that focuses on teaching grade appropriate programs that coincide with Reading and Writing units.

A PD with other grade levels to discuss how they implement it

Training with a TCRWP staff developer

More time for training during site time.

I'm not sure. I think I just need a jumping off point. Also, sample lessons that people have done at my grade level would be helpful. Time to plan with support personnel and technology in the room.

An effective PD that would influence me to incorporate technology into the Reading and Writing Project would be examples of how other teachers have been successful, examples of how other teachers have been successful, and being able to work with my colleagues.

Time to plan with my grade level to incorporate technology during the school year.

I feel like I've had good training on iPads but I still don't have any for my class. I'm hoping I will in the fall. Aside from that, I guess I would like to know how better to use my Promethean board for Workshop. I can easily use it for Math, etc. but not so much Reading and Writing Workshop. I rely on my doc camera or anchor charts and paper for that.

Examples of integration 4

Time to collaborate (planning too) 5

Tech expert or TC expert 3

Training 1

Time to familiarize 2

Professional Development 3

Equipment 1

Sample videos/projects/lessons

- Sample videos of integration technology and workshop
- An opportunity to see sample projects
- I would like a mini lesson
- sample lessons that people have done at my grade level would be helpful
- examples of how other teachers have been successful
- examples of how other teachers have been successful

Time for collaboration

- Time to collaborate with grade level colleague to develop lessons where technology and workshop are integrated
- grade level time with a tech expert that is willing to brainstorm and work with us to create a tech lesson
- A PD with other grade levels to discuss how they implement it
- being able to work with my colleagues
- Time to plan with my grade level to incorporate technology during the school year.

Planning

- time for hands on (make and take) planning
- Time to plan with support personnel and technology in the room
- Time to plan with my grade level to incorporate technology during the school year.

Time to familiarize

- time to try it out on my own before adding more information
- time to familiarize myself with curriculum and teaching methodology for Workshop
- time to synthesize new technology with the latter methodology

Professional Development

- PD that focuses on teaching grade appropriate programs that coincide with Reading and Writing units.
- A PD with other grade levels to discuss how they implement it
- An effective PD that would influence me to incorporate technology into the Reading and Writing Project
- Training with a TCRWP staff developer
- Time to plan with support personnel and technology in the room
- grade level time with a tech expert that is willing to brainstorm and work with us to create a tech lesson
- tech training around how to integrate technology into our workshops,
- More time for training during site time.
-

Equipment

- I feel like I've had good training on iPads but I still don't have any for my class

Other

- I'm not sure. I think I just need a jumping off point.
- I guess I would like to know how better to use my Promethean board for Workshop. I can easily use it for Math, etc. but not so much Reading and Writing Workshop. I rely on my doc camera or anchor charts and paper for that.

Appendix E

Researcher's Certificate of Completion



Appendix F

Advisor's Certificate of Completion

