NALB: No Administrator Left Behind: A Qualitative Study Regarding Administrators’ Perceptions of Technology Integration

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NALB: No Administrator Left Behind:  
A Qualitative Study Regarding  
Administrators’ Perceptions of Technology Integration

by

SCOTT THOMAS CURCIO

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Submitted in partial fulfillment  
of the requirements for the degree of  
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OFFICE OF GRADUATE STUDIES

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ABSTRACT

The purpose of this study was to explore the perceptions of K-12 principals regarding technology integration in their schools. Qualitative interview research was conducted to gather data regarding principals’ perceptions, attitudes, visions, and beliefs as they relate to this topic. This study was premised on the conceptual framework of Dr. John Collins’ (2009) Technology Leadership, Management and Policy Pyramid. The three sides of this pyramid are organizational integration activities, maintenance activities, and planning activities. According to Collins (2009), all three sides of this pyramid need to be effectuated simultaneously with committed leadership in order to support this model and achieve successful technology integration.

Thirteen participants, all of whom were principals in their schools, were interviewed one on one. Each of the participants was principal of a school in a District Factor Group, DFG I school district northern New Jersey. After recording the interviews with two audio recorders, the sessions were transcribed and analyzed. The findings included the following common themes: (a) each of the principals considered herself/himself a technology leader of her/his school; (b) leading by example, especially with technology, allows for a more fluid integration of technology in each school; (c) professional development (PD) taught by staff in the district often times is more beneficial than outsourced PD, and it also allows for more follow-up PD during team meetings, faculty meetings, etc.; and (d) most participants have seen an increase in the use of effective use of technology in the classroom. The data collected from this research study can facilitate certain school district organizations that are fledgling with technology integration, need an increase in effectiveness, or perhaps are seeking a fresh approach.
ACKNOWLEDGEMENTS

While it is possible to put your mind to something and accomplish it through hard work, having the right people supporting and guiding you is also important. After enrolling in the Education Leadership, Management and Policy program, my first professor was Dr. Anthony Colella. It is only fitting, then, that he has been my mentor throughout this dissertation process. Innumerable communications with Dr. Colella via e-mail, phone calls and texts kept me on track, focused, inspired and determined to see this research to fruition.

Dr. Barbara Strobert guided me through my administrative internship experience with such precision and grace, and therefore, when Dr. Colella suggested I ask her to be a part of my dissertation committee, I gladly contacted her. Dr. Strobert cheerfully accepted my request, and she has proven to be an invaluable member of this committee. Always providing rich feedback, Dr. Strobert was the perfect combination of efficient and insightful. I welcomed her suggestions and appreciated her compliments.

Dr. Timothy Purnell is a former boss and softball teammate, but most importantly, has been a friend for more than a decade. New Jersey’s School Superintendent of the Year in 2015 and a fellow Seton Hall University graduate, Dr. Purnell and his leadership acumen was a valuable part of this process. Along the way, Dr. Purnell offered me meaningful insight, positive feedback, and supportive gestures. I still recall a cold, snowy day, when we met at a coffee shop to review my first three chapters. It is the little things and sacrifices like these that do not go unnoticed.

Finally, Dr. Mark Connolly has been my inspiration for conducting this research. His dissertation was brilliantly executed, and my research stemmed from his recommendations for future research. Through numerous e-mails and a face to face meeting, Dr. Connolly never
ceased to congratulate me on my progress and ongoing mini-accomplishments. Knowing that he went through the same thing roughly eight years ago both encouraged and inspired me to persevere through the sometimes daunting steps of completing a dissertation.

In closing, I would like to thank my entire dissertation committee for their unique strengths and unending encouragement. I would also like to express my appreciation to the jury of experts who took the time to review my research instrument and provide me with feedback, which ultimately made for a richer and deeper method of research. The support and guidance I received from all these individuals helped make this dissertation possible.
DEDICATION

This dissertation, but really, way more than that, is dedicated to my parents, Tom and Bridgetta, and sister, Katie. Your love, support, understanding, compassion, sacrifice and much more has helped mold me into the person (and Doctor) I am today. This is also dedicated to Romanna Alexis, whose love, support, and encouragement along this journey have all been invaluable.
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The Problem

The turn of the century brought with it new hopes, dreams, and fears alike. Technology, with all of the innovation accomplished over the past 16 years, has changed the dynamic of functioning society. Human beings have witnessed the birth of Facebook, Twitter, iPhones, software programs, and hardware that both evolve and change rapidly, as well as many other technological innovations. However, with all of these achievements and the increased importance and relevance of technology, as well as the demand for using it, comes the need to implement, maintain, and support it. In 2016, the field of K-12 education is dealing with how to effectively tackle the phenomenon of technology integration in K-12 schools.

Dating back to 2001, it was estimated that more than 60% of jobs in the information age would require some level of technical competency (Mentz & Mentz, 2003). Given this outlook and the demand being put on schools to teach learners the basic technology skills required by a modernized society, a demand for leadership to facilitate this process has taken hold. The focus needs to be on the capacity of school administrators, and especially school principals, if the desired outcome is an effective implementation of technology into classrooms and curriculums (Mentz & Mentz, 2003).

The problem is that even though there is new and better technology everywhere one looks, school leaders’ preparations and abilities to lead the technology integration efforts in K-12 schools are under tremendous scrutiny. This scrutiny has far-reaching implications, especially if one considers that a failure to successfully integrate technology into schools could lead to a generation of young women and men unable to meet the needs and demands of the modern day
21st century.

As improvements and advancements in technology have been growing over the last two decades, so too has the technology prowess required of K-12 school leaders. The school administrator is a key player in the leadership role of technology integration (Richardson, McLeod, & Dikkers, 2011). Active technology leaders are needed in order to give credence and credibility to technology efforts. Furthermore, a principal’s lack of technology leadership has been found to negatively impact the integration of technology (Wang, 2010).

If the goal is to hire and retain school leaders who are capable of acting as technology chiefs, then educational leadership programs need to prepare both current and future administrators to get the most out of technology in K-12 schools (Howell, Reames, & Andrzejewski, 2014). Further, much like teachers need ongoing and meaningful professional development to be most effective in the classroom, administrators will require ongoing training and support in order to effectively implement 21st century technology initiatives in their schools and provide the necessary leadership and vision that such a mission entails. In order to lead the way with enthusiastic and meaningful visions, Chang (2012) noted that, “principals as technology leaders must develop and implement vision and technology plans for their schools, encourage the technological development and training of teachers, provide sufficient technological infrastructure support, and develop an effective school-evaluation plan” (p. 336). This is no small task.

Crandall (1982) theorized that school innovations do not fail due to flaws, but rather due to flawed management or a lack of support by administration. Not surprisingly, the principal’s support of teachers is needed if successful implementation of said innovations is likely to take place. Furthermore, in order for these innovations to be effectively implemented, which has a
higher likelihood of happening if the principal supports the teachers, the principal must possess the requisite skills and knowledge to oversee such a venture (Dawson & Rakes, 2003). Those skills and that knowledge must include the proper and effective use of technology. Mecklenburger (as cited in Dawson & Rakes, 2003) noted that “Administrators must understand both the capabilities and limitations of technology. Only then can they plan for, budget for, purchase carefully, install properly, maintain dutifully, schedule adequately, distribute appropriately, and replace systematically the electronic technology best suited for their needs” (p. 33).

Purpose of the Study

The purpose of this research was to explore K-12 school administrators’ technology leadership and its influence on technology integration. Conducting interviews in qualitative research is both an effective and meaningful way of gathering data. “The purpose of all qualitative research is understanding some part of the human experience” (Donalek, 2005, p. 125). Further, “to successfully interview is to connect with another person on a very profound level” (Donalek, 2005, p. 125). And while there are many factors that come into play regarding technology integration, I focused on three specific areas, all of which derived from Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. The three sides to this pyramid are: organizational integration activities, planning activities, and maintenance activities.

The education community generally agrees with the definition of quality professional development, which qualifies as being for a long period of time, has follow-up support, accesses new technologies, and is collaborative (Martin, Strother, Beglau, Bates Reitzes, & Culp, 2010). Professional development that is truly successful and long lasting also requires ongoing support
from administration. And while professional development is a requisite to improve classroom practice for most teachers, focusing professional development on technology integration is imperative (Sorensen, Shepherd, & Range, 2013). As technology advances, expands, and continues to enter school settings, both teachers and administrators will require training to master the most effective ways of delivering best practices in the classroom. Without this training and relevant professional development teachers are likely to bypass technology use in the classroom (Sorensen, 2013). Further, Rogers’ (as cited in Sorensen, 2013), in his theory of change, noted that,

The success of any innovation (e.g., technology integration) is dependent on the communication channels used to transmit information about that innovation, receptivity of the social system receiving the communication, and recognition by the social system that the innovation will provide a relative advantage over the status quo. (p. 74)

As this relates to Collins’s (2009) Technology Leadership, Management, and Policy Pyramid, principals and leaders of school organizations must have the vision and foresight to provide organizational integration activities. This is tantamount to professional development. An ongoing professional development program is required if the goals are to be met most effectively (Bennett, 1996).

The second side of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid is maintenance activities. Maintenance activities require vision as well, perhaps more so, because a leader must have the wherewithal to not overlook this critical, yet somewhat under the radar side of the technology pyramid. In order for technology to have an impact on student learning an appropriate level of resources needs to be in place to sustain support and
maintenance of the networks and equipment. Collins (2009) noted that taking care of technology is similar to taking care of ourselves; it is an ongoing and never-ending routine.

Lastly, the third side of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid is planning activities, of which Collins stated, “I have lost track of the number of observations I have made with business, education and government organizations that do a decent job with the first two sides of the Pyramid, yet fail miserably with this side-planning activities” (p. 22). This third and crucial side of the pyramid requires proactivity related to technology planning and acquisition. Mapping out the technology needs of the district requires both leadership and management. Bennett (1996) referenced the early 1990s, when nobody knew what www meant. Today, seemingly everyone knows what www (world wide web) means. Given that technology changes so rapidly, it is important for school leaders to each maintain a proactive vision, a game plan, and surplus funds for any and all ideas and purchases that may eventually come to fruition. Collins (2009) noted that state-of-the-art technology becomes state-of-the-practice technology after approximately 2 years. The difference between the two is that state-of-the-art technology is generally considered the cutting-edge, newest, best, and fastest technology available, while state-of-the-practice technology, which encompasses the technology with which users may be significantly comfortable, is typically not the most cutting-edge technology. The third side of the pyramid requires school leaders to strike a balance as they prepare to plan for activities related to technology integration.

All three sides of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid must be effectuated simultaneously and with committed leadership in order to support this model. Committed leadership is needed, but committed visionary leadership is ideal. Beytekin (2014) claimed that in order to effectively apply visionary leadership, “educational
administrators inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization” (p. 442).

Conceptual Framework

The literature reviewed in Chapter II adds to the knowledge base regarding integration of technology in K-12 schools. As a Computer Technology teacher in grades 3-8, I have a special connection to, and interest in, the topic of technology integration in schools. Specifically researched for this study were the roles of principals regarding technology integration, their vision for technology integration, the challenges they faced, and their attitudes and perceptions regarding technology integration. These topics were based on Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. Literature related to the integration of technology and Collins’ (2009) Technology Leadership, Management, and Policy Pyramid provided a conceptual framework for understanding the roles, visions, roadblocks, and attitudes regarding technology integration from the perspectives of K-12 principals.

Collins’s (2009) Technology Leadership, Management, and Policy Pyramid was chosen as the conceptual framework based on its relevance and importance to leadership of technology integration. Chapter II provides details about this conceptual framework, as well as a review of the literature about technology integration efforts and approaches.

This study focused on the perceptions, attitudes, and experiences of K-12 principals regarding their roles and abilities to integrate technology into schools and individual classrooms. In present day 2016 more than ever, there is a need to understand the process of how technology gets integrated and what support systems facilitate this process moving forward.
Research Questions

This study explored the perspectives of K-12 school principals who attempt to integrate technology in their schools. Using Collins’s (2009) Technology Leadership, Management, and Policy Pyramid as the guiding conceptual framework, the following questions were asked and addressed by the research:

1. What roles do school administrators play in integrating technology in their schools?
2. How do school administrators perceive the integration of technology in their schools in terms of the Technology Leadership, Management, and Policy Pyramid?
   a. How do school administrators perceive their schools regarding the provision of organizational integration activities (professional development and blending technology with the curriculum)?
   b. How do school administrators perceive their schools regarding the provision of maintenance activities for the technology currently in their district?
   c. How do school administrators perceive their schools in the provision of planning activities for future technology acquisition?
   d. What is the school administrator’s vision of committed leadership regarding technology integration?

Study Design and Methodology

The design and methodology of this qualitative study was established to collect data regarding K-12 school principals’ perceptions of the integration of technology in their schools. The literature review enabled me to assemble a blueprint that drove this research, and also ensure its viability. The sample of participants were randomly selected school principals from DFG
(District Factor Group) I school districts in northern New Jersey. Randomly seeking and obtaining participation from these school principals ensured the integrity of the data collection process. Due to recommendations for future research in previous studies, DFG I was an important and relevant population to research. Prior to obtaining permission from each Superintendent to conduct the research with administrators in her or his district, much planning and many details were considered in order to make this qualitative research viable. Questions existed such as where and when would each interview take place, the length of time allotted for interviews, and whether incentives would be provided to entice participation.

I scheduled each interview for a mutually agreed upon time, date, and location, which were established via e-mail communication. Once an agreed upon date was determined, I sent an e-mail to each participant thanking her or him, and confirming the official date, time, and location of the interview.

A data collection instrument was created and used based on the two research questions and four sub-questions. This instrument contained 9 interview questions, and they were largely premised on the conceptual framework of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. Prior to the collection of data, a jury of experts vetted the instrument. Every step in the design process was thoughtfully considered and purposefully executed with a focus on maintaining the reliability and validity of the data that would be collected.

Significance of the Study

Wang (2010), in commenting on a study by Holland (2000), noted that, “One overlooked problem is the effect of technology leadership by principals on technology integration” (p. 51).
Kara-Soteriou (2009) set out to determine the extent to which technology training for principals influenced technology integration in the classroom, and the findings suggested the following:

School principals are more likely to lead schools that integrate technology in the curriculum if they are offered sustained training with a focus on how to integrate technology in the school’s curricula and with consideration of the principals’ technology and school needs. (p. 94)

Furthermore, in order to more effectively integrate technology into schools, it would behoove school superintendents to encourage principals to become more active with technology initiatives at both the school and district levels (Kara-Soteriou, 2009). Understanding both how principals are trained in the use of technology and the degree to which that training assists in increasing teacher effectiveness is of paramount importance. This topic was explored further to provide clarity regarding the integration of technology in schools.

Arokiasamy, Abdullah, and Ismail (2014) noted that, “technology leadership involves both understanding the technologies and how they can be applied to accomplishing” (p. 28). In investigating such a concept, Gibson (as cited in Arokiasamy et al., 2014) noted that, “school principals must focus their energies on ten technology categories: existing practice, planning, curriculum, resources, staff issues, communications, support, obstacles, staff development, and implementation” (p. 28). This list gives insight into the many hats an administrator must wear. And while this list provides ample subject matter, for the purposes of this study, I zeroed in on the specifics that derived from a conceptual framework developed by Dr. John Collins (2009), the Technology Leadership, Management, and Policy Pyramid. Those specifics are organizational integration activities, planning activities, and maintenance activities.
In abiding by this framework, principals may gain an understanding of the capabilities of new technologies and can integrate said technologies into their personal use, all the while promoting a school culture that applauds new styles of teaching, learning, and management (Arokiasamy et al., 2014).

In many cases, technology leadership responsibilities has been formally assigned to principals. However, most of them do not have the requisite background or sufficient training to confidently contend with technology (Afshari, Bakar, Luan & Siraj, 2012). Alas, that may not be a valid excuse, given the notation by Sharija and Watters (2012) that “Advances in Information Communication and Technology (ICT) over the past thirty years have changed the way people live, work, and play” (p. 425).

**Limitations and Delimitations of the Study**

As with every study, this one has certain limitations and delimitations. One limitation of this study was the possibility of researcher bias. I was at the time of the study, and had been a Technology teacher for the past 6 years, so I integrate technology on a daily basis. Another limitation is the time period of the data collection. The data was collected during a period of time from May 2016 through June 2016 and, therefore, all of the findings are specific to that period of time.

Delimitations of this study included the school districts selected. The subjects of this study were delimited to District Factor Group (DFG) I school districts in northern New Jersey. For that reason, caution should be applied when applying these findings to other school districts.
Definition of Terms

The following definitions and abbreviations will provide relevance to this study.

Technology. According to the Merriam-Webster online dictionary (2016), technology is defined in full as: “(1a) the practical application of knowledge especially in a particular area, (1b) a capability given by the practical application of knowledge, (2a) a manner of accomplishing a task especially using technical processes, methods, or knowledge, (3) the specialized aspects of a particular field of endeavor <educational technology>.”

Leadership. According to the Merriam-Webster online dictionary (2016), leadership is defined in full as: “(1) the office of position of a leader, (2) capacity to lead, (3) the act or an instance of leading.”

Technology Integration. According to Peled, Kali, and Dori (2011), technology integration is “long-lasting and continuous change in the school system caused by the adoption of technology to help pupils construct knowledge” (p. 229).

Organizational integration activities. According to Collins (2009), “Organizational integration implies the technology needed is being adopted as a result of a mission statement, vision, goals, objectives or combinations” (p. 37).

Maintenance activities. According to Collins (2009), “Maintenance implies that the technology needs to be preserved and continue in operation” (p. 41).

Planning activities. According to Collins (2009), “Planning is one of the few ways we can anticipate changes that otherwise would be upon us without considering the major implications” (p. 47). According to the Merriam-Webster online dictionary (2016), planning is defined in full as, “the act or process of making or carrying out plans; specifically: the establishment of goals, policies, and procedures for a social or economic unit.”
Organization of the Study

Chapter I presents the problem to be studied, which is: What roles are K-12 school principals playing regarding integrating technology in schools in terms of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid? This chapter contains an overview and description of the problem of technology integration.

Chapter II contains a review of literature related to technology leadership and technology integration. The literature provides insight into the importance of technology leadership if technology integration in schools is to be successful.

Chapter III contains a description of the methodology that was used to conduct research regarding how school administrators perceive their technology leadership in terms of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. This chapter details the research design, the research questions, the population, the instrumentation used, and the methods and process for data collection and analysis.

Chapter IV describes the results of the data collection.

Chapter V summarizes the study, provides analyses, and connects the results to the literature reviewed in Chapter II. Also, it provides the conclusions and offers recommendations for policy and future research.
Chapter II
REVIEW OF RELATED LITERATURE

Introduction

Innovative technology ideas can originate anywhere; teachers, principals, parents, board members or others can bring them to the table and even advance them beyond infancy. However, Sheppard and Brown (2014) noted that “it remains largely dependent upon the school principal to move it (technology ideas) forward” (p. 90). Principals are the driving force for successful or unsuccessful technology integration.

This chapter will explore the literature related to the technology leadership of principals, the significance of principals’ visions for technology, and the components of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. The chapter begins with a brief introduction to the connection between principal involvement and technology integration in classrooms and is followed by (a) a review of the literature search procedures, (b) a discussion of the roles principals play in technology integration, (c) a discussion of the impact visions have on technology integration, and (d) the challenges related to technology that administrators face.

Growing knowledge of Information and Communication Technology, or ICT, can allow principals and school leaders to adapt to shifts or changes in schools, as well as to more effectively communicate within the organization (Hamzah, Juraime, Hamid, Nordin, & Attan, 2014). That knowledge may further enable principals and teachers to develop and successfully implement technology integration in the classrooms.

While McGrail (2005) conducted a study that investigated the integration of technology by English Language Arts teachers, the results attest to the importance of principal involvement. This qualitative study used an interview process to gain insights from the perceptions of teachers
as was related to the concerns and problems, as well as the gains made, using technology in the classroom for educational purposes. As long as teachers were convinced that change would benefit both their students and their own instructional practices, teachers were willing to accept the concept of change (McGrail, 2005).

Further, Li and Achilles (1999-2000) gathered data from both administrators and teachers, and in the results they noted that, “Thus, to integrate technology effectively in schools, school administration needs to work on creating new social conditions to facilitate teachers’ learning and using behaviors” (p. 17). In situations in which new technology is being integrated, leadership requires modeling the technology or new innovation, participating in the implementation and doing what is necessary to facilitate the occurrence of the integration (Liu, Ritzhaupt, & Cavanaugh, 2013). Further, Winslow, Dickerson, Lee, and Geer (2012) noted that “Effective technology utilization modeled by school administrators both facilitates and unifies the efforts of students and teachers to create a digital-age learning culture within a school” (p. 188).

**Review Methods**

This literature review explored mainly qualitative and some quantitative research regarding the integration of technology in K-12 schools in the United States and abroad. I conducted a literature search that lead to a discussion about technology integration, the importance of leadership in technology integration, and anything related to or combining these two topics. Literature was obtained from electronic databases (e.g. ProQuest, Google Scholar, ERIC, SAGE). As previously mentioned, along with research from the United States, scholarly
articles from international sources were also utilized to gain a deeper and broader understanding of the literature.

**Parameters of the Review**

The review of the literature explored qualitative studies, but quantitative studies were also used when appropriate. Here are some parameters used in this literature review:

1. used only studies based on K-12 grade levels;
2. timeframe primarily consisted of 2010 – present; a handful of studies conducted prior to this were used; and
3. used only peer reviewed sources and published books related to literature. (Using peer reviewed scholarly articles ensures articles are assessed by other scholars in the same field prior to being accepted for publication.)

**Role of Administrators in Technology Integration**

Berrett, Murphy, and Sullivan (2012) noted that, “technology integration in schools is commonplace, so much so that educators often ignore what is thrown at them, hoping that it will disappear as many technology integrations often do” (p. 200). Irrespective of the new and potentially viable technology present in today’s world, the dismissal of technology in classrooms seems to be a recurring theme throughout K-12 education. Berrett et al. (2012) noted that, “leadership and administrators’ ability to lead is a significant factor in determining the success of implementing a new technology” (p. 201).

Berrett et al. (2012) performed a qualitative study that examined administrators’ roles in integrating technology. The purpose of the study was to gain an understanding of technology
implementation from the perspective of five administrators through the lens of six themes (identity, relationships, tensions, transformation, needs, and motivation). These themes were determined to coincide with a grant that the school district obtained, referred to as the Enhancing Education Through Technology (EETT).

Berrett et al. (2012) learned that two of the four administrators’ schools achieved levels of success in implementing the technology due to the empowering of mentors who were willing and able to take on the responsibility of leading the technology implementation, whereas the other two schools had mentors who could not contribute meaningfully to the implementation. Berrett et al. (2012) noted that, “technology leadership must emerge for implementation” (p. 216). One possible limitation of this study worth noting is that the fifth administrator interviewed, the technology supervisor, was not a constant at any of the four schools. Therefore, his vantage point was different from the principals and could have impacted the results.

Hamzah et al. (2014) performed a study to examine the extent to which school administrators in High Performing Schools (HPS) were displaying technology leadership. Examined was the relationship between the technology leadership practices of 96 administrators in 12 HPS with School-Malaysia Standard of Education Quality (School-MSEQ). This quantitative study used the same model technology leadership approach as studies conducted by Anderson and Dexter (2005) and the National Educational Technology Standards for Administrators (NETS0A, 2002), which is an effective model in identifying the level of technology use by administrators in HPS (Hamzah et al., 2014). The findings concluded administrators do not necessarily have to be ICT experts, but simply showing an interest in the teachers and their implementation of technology goes a long way (Hamzah et al., 2014).
Machado and Chung (2015) performed a qualitative study that examined the roles and perspectives of principals regarding technology integration in the classroom. Machado and Chung (2015) found that much research had been conducted from the point of view of, and regarding teachers, but research was found to be lacking concerning administrators. While many barriers inevitably exist when addressing technology integration, administrators have the ability to either let those barriers persist or assist the organization in overcoming them. Machado and Chung (2015) noted that, “the role of the principal has also changed from solely a school administrator to the current, multi-faceted role of curricular and technological leader” (p. 44). Machado and Chung (2015) further noted, “schools whose principals received technology integration training had higher levels of technology integration success than a control group of principals who did not receive the training” (p. 45). While training plays a large role in potential technology integration, so do attitudes. Many teachers were impacted by the attitude of their principals and their level of technology use often varied based on the support they felt (Machado & Chung, 2015). The study conducted by Machado and Chung (2015) had a participant return rate of 21% by personalizing the e-mail greeting. Forty two out of 200 principals participated in the survey, and qualitative interviews were also conducted to allow a more unique perspective. The findings of Machado and Chung (2015) suggest that more research should be conducted regarding the role of the principal on technology integration, and that principals should consider implementing a technology vision plan if the hope is to achieve technology integration in their schools.

In Turkey, both school administrators and computer teachers have the responsibility of integrating technology into education. Cakir (2012) performed a study to obtain the perspectives and attitudes of 38 administrators with respect to technology integration, as well as the insights
of 35 computer teachers. A two-part questionnaire was used to gain insight into administrators’ backgrounds and attitudes about technology. Two of the main functions of administrators as related to technology integration are to support learning and the use of new content and to facilitate the transition to a learning environment where both students and teachers can utilize the technology to produce results (Cakir, 2012). Accomplishing this can be done in many ways, but sharing responsibilities is a great way to ensure effective technology integration. By showing involvement and providing support through the process of technology integration, “employees are more ready and willing to be engaged in the learning process” (Cakir, 2012, p. 275). This shows the level of influence principals have in terms of successful or unsuccessful technology integration in schools. Similarly, Wang (2010) indicated that effective technology integration only takes place when the principal is able to lead her or his staff by being involved and communicating the potential that technology brings to the table.

Cakir (2012) concluded that school administrators and computer teachers in Turkey have positive attitudes towards technology integration, as well as high interest levels. Lastly, administrators are leaders and managers, but teachers as well. Their support to staff members, their attitudes, and their daily decisions and actions that are watched by many others all play an important role in the degree to which effective technology integration may occur (Cakir, 2012).

Due to the advancement towards a digital technology era, technological leadership has become more and more important over the last few decades (Chang, 2011). Specifically, Chang (2011) noted, “in pursuit of the ultimate goal of improving students’ abilities, principals aiming to facilitate school reform should have technological leadership abilities” (p. 328). Chang (2011) conducted a quantitative study that examined the relationship between principals’ technological leadership and the use of technology and its effectiveness by Taiwanese elementary school
teachers. In order to be considered a technological leader capable of leading, a principal must be trained in the following five areas: (a) vision, planning and management, (b) staff development and training, (c) technological and infrastructure support, (d) evaluation and research, (e) interpersonal and communication skills (Chang, 2011). The validity of this literature exists on many fronts, but specifically, 1,000 teachers from cities in the northern, central, and southern parts were surveyed, which equated to covering an extensive part of Taiwan’s teaching population. Sending thank-you postcards and due diligence afforded the researcher a 60.5% survey return rate. Examining these areas from the perspective of teachers also offered an unusual, yet appreciated dynamic. The findings confirmed previous research that principals’ technology leadership both improved teachers’ usage of technology and directly influenced the integration of technology by teachers (Chang, 2011). A further finding indicated principals’ technological leadership also increased the effectiveness of teachers’ instruction (Chang, 2011).

Wang (2010) conducted a narrative-analysis that explored how a principal’s leadership style can actually impede the integration of technology. The data was collected from only one technology coordinator, but the insight was invaluable. And while this insight was invaluable, it is important to note that the sample size of one was extremely small and the generalizability of the findings are limited. The technology coordinator, in coordination with teaching staff, attempted to incorporate computers into the school without any principal support. The principal provided no vision, resources were minimal, and empowerment was lacking. Wang (2010) noted, “Effective technology integration requires a team approach. A principal must foster potential technology leaders through empowerment” (p. 53). Wang (2010) not surprisingly found that technology integration was not taking place at a high level, and concluded that further
research should be conducted regarding the importance of the technology leadership of principals.

**Professional Development and Vision Regarding Technology Integration**

“A prerequisite to effective school technology integration programs is teacher professional development at the outset and continuing through the implementation of the innovation” (Liu et al., 2013, p. 577). The school leader contributes to this professional development process in many ways and in many stages. Throughout new technology integration, encouragement of good and creative ideas from the outset, assistance and reassurance during the fledging stages, and making it clear that resources are available throughout the process are all indications of strong leadership (Liu et al., 2013).

In order for the aforementioned stages to occur, a vision is necessary. Grey-Bowen and Qian (2010) noted, “The vision of how and why technology is to be used in schools is critical in identifying where an institution is going with technology and how it is going to reach its goal with technology” (p. 6). This vision is important in so many ways, and establishing one provides the best likelihood that all stakeholders will feel the necessary support to endure the integration of technology.

Grey-Bowen and Qian (2010) performed a descriptive study that examined 103 Miami-Dade County elementary school principals via the use of the Educational Technology for Principals Survey. Based on the National Educational Technology Standards for Administrators (NETS-A), principals self-reported their proficiency as well as their view of the importance of technology leadership. The findings indicated that the principals felt most proficient under productivity and professional practice, while in terms of the level of importance, leadership and
vision were ranked as the highest. Interesting to note is that in the area of proficiency, the least proficient area, based on the NETS-A, was support, management, and operations. This, as Dr. Collins’s (2009) pyramid indicates, can present major problems when integrating technology.

The three sides to Collins’s (2009) pyramid are organizational integration activities, planning activities, and maintenance activities. This pyramid suggests principals and leaders of school organizations would increase their effectiveness by providing a vision and foresight regarding organizational integration activities, which is tantamount to professional development. Maintenance activities require this vision as well, perhaps more so, because a leader must have the wherewithal to not overlook this critical, yet somewhat under the radar side of the technology pyramid. Lastly, planning activities, for which Collins stated, “I have lost track of the number of observations I have made with business, education and government organizations that do a decent job with the first two sides of the Pyramid, yet fail miserably with this side-planning activities” (p. 22). This third, yet crucial side of the pyramid requires proactivity related to technology acquisition. Mapping out the technology needs of the district requires both leadership and management. All three sides must be effectuated simultaneously with committed leadership in order to support this model.

Sharija and Watters (2012) conducted a case study of two leading Kuwaiti schools regarding the integration of ICT. Two school principals were interviewed, observed, given questionnaires, and had his or her documents analyzed. Also, five teachers selected at random from each principal’s school were interviewed via focus groups.

Insight from two principals included many important factors, but a handful coincided with the tenets of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. Their successful improvement of ICT in schools was a result of providing initial and follow-up
training opportunities for staff, building a shared and strong vision for the use of technology, and the maintenance of technology. Collins’s (2009) Technology Leadership, Management, and Policy Pyramid tackles technology integration from three sides: (a) organizational integration activities, (b) planning activities, and (c) maintenance activities. Principals’ claims were triangulated with teachers who were interviewed, and both principals demonstrated the ability to provide the necessary activities for improving ICT use. In order to provide proper maintenance for the technology, leaders must have the requisite vision for ICT use. The researchers noted, “support for maintenance equipment and technology is important for ICT embedding success” (Sharija & Watters, 2012, p. 430).

Dawson and Rakes (2003) performed a study that examined whether the technology training received by principals had an impact on technology integration in the classroom. Also considered were the age, sex, and years of administrative experience of the principals, as well as school size and grade level. The School Technology and Readiness (STaR) Chart Assessment was used by the researchers to gauge the principals’ levels of technology integration in the schools. This online data collection tool measured the following five areas: (a) connectivity (school’s access to the Internet, World Wide Web, and e-mail communication); (b) hardware (presence and maintenance of computer technologies); (c) content (regularity of student use of digital content software); (d) professional development (technology training provided to teachers/staff); and (e) integration and use (the pattern of technology use by students and teachers in the majority of schools) (Dawson & Rakes, 2003). The reach and depth of this research was vast, not only because of its strong methodology, but also because the sample consisted of 400 K-12 public and private school principals who used the Internet and represented all 50 states in the United States. There was also a wide range of school levels represented, as more than half of
the principals worked in elementary schools, one-fourth in high schools, and one-fifth in middle schools (Dawson & Rakes, 2003). The findings were that the type and amount of training principals get both have an effect on the level of technology integration. Principals who received 13-25 hours of training reported more technology integration than those who received less than 13 hours. Furthermore, participants who received training regarding how to integrate technology in the curriculum were found to demonstrate better technology leadership than those who received a different type of technology training. Lastly, principals in the 41-55 year age range reported more technology integration than those below 41 years of age (Dawson & Rakes, 2003). The findings of this study provide some far reaching implications into the type of training principals need in order to effectively lead the integration of technology in their schools.

Gioko (2013) conducted a 12-month study of two cohorts of leaders in Kenya who were selected from 63 schools. One cohort had 28 leaders and the other had 36. Instead of the perceived-inefficient 1-day training, these leaders were exposed to a 6-month course related to educational leadership and management that would lead to being-certified (Gioko, 2013). The training was guided by an ICT questionnaire that leaders filled out during the selection process. Queries regarding competency in ICT and expectations of the course were included in the questionnaire. Based on the feedback from the first cohort, amendments were made for the second cohort. I found this approach refreshing, given that most professional development seems to cater to a general audience, and not a specific one, which indeed is needed in every situation. In fact, three leaders from the second cohort initiated an action research project about ICT integration based on feedback from leaders in the first cohort. Gioko (2013) provided similar findings to an earlier Gioko and Unaeza study from 2010, in which it was suggested, “that there is a need to develop leaders’ basic computer skills before going on to consider the
role of technology leadership in educational leadership” (p. 157). Once those basic skills are developed, Hill et al. (as cited in Gioko, 2013) noted that, “the principal plays a pivotal role in modeling (sic) learning, building a culture of collaboration, and identifying potential in and facilitating the learning of others” (p. 157).

**Challenges Administrators Face**

Many challenges exist for principals and school leaders. Cyberbullying, which is defined as bullying behavior carried out via the use of computers, is an example of negative student behavior that poses new challenges for school leaders (Hvidston, Hvidston, Range, & Harbour, 2013). While the traditional form of bullying has already existed in schools, the integration of computers and new information technologies has made bullying potentially more devastating and certainly much harder to detect (Hvidston et al., 2013).

Forty-nine states have some type of antibullying legislation, while 16 states have enacted legislations that address cyberbullying (Hvidston et al., 2013). Beyond that, 10 states have granted authority to schools to impose punitive measures for incidents or behaviors that occur off school property. This type of legislation provides guidance for school leaders, but it also creates an atmosphere of pressure to act, because failure to do so may result in litigation and/or possible lawsuits for negligence (Hvidston et al., 2013). Despite presenting many challenges, social media platforms such as Twitter have tremendous benefits for leaders in the education community. Couros and Jarrett (as cited in Sauers & Richardson, 2015) noted that, “administrators and school district leaders are using Twitter as a means of sharing information with the local school community” (p. 131).
Sincar (2013) noted that there are many different technology leadership models, but regardless of the differences between and among them, they all have a common goal based on the National Education Technology Standards for Administrators (NETS*A), which is to provide school principals with the needed proficiencies to be effective technology leaders. While principals may acquire and/or possess the necessary skills for NETS*A implementation, few models have the ability to forecast or prepare them for the multitude of challenges that may present themselves along the way (Sincar, 2013). In order to mitigate these potential challenges, Sincar (2013) provided a roadmap of what problems a principal might face. The four major roadblocks are as follows: (a) lack of training, (b) resistance, (c) resources, and (d) equity and bureaucracy. Lack of training included both teacher and administrator preparation. Resistance came in many forms, but specifically from the school community, and in particular, teachers. Sincar (2013) noted that “it is not surprising that teachers would show some degree of resistance to changes in their teaching practices as the process of technology integration requires teachers to modify what they have been doing for years” (p. 1275). Yet another roadblock for technology leadership is resources, which can come in the form of lack of technological facilities, human resources, and necessary skills regarding how to manage said resources. Lastly, some principals noted that school-based technologies are not distributed equally among all schools (Sincar, 2013).

Principals’ Attitudes and Perceptions

Peled, Kali, and Dori (2011) performed a longitudinal study in which the long term effect of principals’ attitudes and involvement regarding technology in the classroom was measured to gauge the level of reform in terms of science teachers’ uses of educational technologies in the
classroom. Included in the literature were reference to previous studies that found a principal’s attitude to have an important effect on the successful implementation of innovative uses of technology in the classroom (Peled et al., 2011). This longitudinal study was conducted over a 7-year period overall, but only the final 4 years were officially part of the study. During the first 3 years, professional development was provided to the teachers, as this was necessary to set up the study. Once the official study began, 14 of the original 16 principals and 19 of the original 60 teachers who participated in the original study were still employed and available in the schools and were interviewed. The semi-structured interviews took place in the schools, and the main focus for the principals was to discuss their roles in supporting teachers’ efforts toward integrating technology in their classrooms. A supportive and encouraging principal was found to advance the teachers with technology use, while a principal who had attempted to prevent the use of technology prevented even the most ambitious teachers from successfully integrating technology, even to the point that some teachers gave up on the concept of doing so (Peled et al., 2011).

Brockmeier, Sermon, and Hope (2005) conducted a study that investigated how principals viewed their relationships with computer technologies. The study was guided by two main questions, that asked if school leaders can effectively facilitate the use of technology in classrooms and if can they use the technology themselves for administrative tasks. Two hundred and sixty eight principals from elementary, middle, and high schools in Florida made up the sample. These principals were asked to take a Computer Technology Survey (CTS). The survey contained 40 Likert-scale questions on the following five topics related to technology: curriculum integration, perceptions, acquired expertise, needs assessment, and professional development (Brockmeier et al., 2005). The most significant finding was that the majority of the
surveyed principals believed more professional development was needed for administrators both in order to effectively facilitate technology integration in a school setting and to use it for administrative tasks (Brockmeier et al., 2005).

Summary

A number of studies regarding technology integration have found a strong link between a principal’s vision, interest, ability, and overall involvement as it relates to successes or failures of technology integration in K-12 schools. Today, principals play a large role in facilitating the integration of technology. That role, whether embraced or ignored, has reverberating effects throughout school districts. Embracing the role of technology leader comes with many challenges, as well as rewards, but ignoring the role can often times equate to leading a school district that lacks vision. Chapter III will describe how the present research study was conducted, as well as the methods by which it was conducted.
Chapter III  
METHODOLOGY

Introduction

In chapter III, procedures and methodologies used to collect data are included. This chapter also describes the following: (a) population and sample studied, (b) instrumentation used, (c) data collected, and (d) how the data was analyzed and reported.

The purpose of this research was to explore the technology leadership of K-12 school principals and its effect on the integration of technology. Collins’s (2009) Technology Leadership, Management, and Policy Pyramid was the conceptual framework that guided this research. The three sides of this pyramid are: organizational integration activities, planning activities, and maintenance activities. According to Collins (2009), all three sides of this conceptual framework must be effectuated simultaneously with committed leadership in order to support this model. Committed leadership is needed, but committed visionary leadership is ideal.

In conducting this study, I used a qualitative approach in the form of interviews to gather data regarding principals’ perceptions regarding the integration of technology. A qualitative approach to research allowed for pure exploration of the topic of technology integration, which ultimately strengthened the knowledge base and will improve decision-making for future technology leadership. Pursuing this research in the form of qualitative inquiry also enables me to garner rich data from participants. As Creswell (2009) noted, “the researcher keeps a focus on learning the meaning that the participants hold about the problem or issue, not the meaning that the researcher(s) bring to the research or writers express in the literature” (p. 175).
Interview research allowed for rich data collection, given that open-ended questions guide the focus. In referring to the open-ended nature of questions, Turner (2010) noted, “This open-endedness allows the participants to contribute as much detailed information as they desire and it also allows the researcher to ask probing questions as a means of follow-up” (p. 756). In order to execute interview research effectively, much preparation is required. Creswell (2009) noted that preparing for the interview, establishing research questions that prove effective, and physically executing the interview are all elements of what makes this type of research valid and useful. Further, it is helpful for a researcher to do her or his due diligence in gathering information prior to an interview so that she or he may ask appropriate and informed questions during the actual interview (Qu & Dumay, 2011).

Research Questions

This study explored the perspectives of K-12 school principals who attempted to integrate technology in their schools. Using Collins’s (2009) Technology Leadership, Management, and Policy Pyramid as the guiding conceptual framework, the following questions were addressed:

1. What roles do school administrators play in integrating technology in their schools?

2. How do school administrators perceive the integration of technology in their schools in terms of the Technology Leadership, Management, and Policy Pyramid?

   a. How do school administrators perceive their schools in providing organizational integration activities (professional development and blending technology with the curriculum)?

   b. How do school administrators perceive their schools in providing maintenance activities for the technology currently in their district?
c. How do school administrators perceive their schools in providing planning activities for future technology acquisition?

d. What is the school administrator’s vision of committed leadership regarding technology integration?

Population and Sample

Qualitative interview research is designed to elicit open and honest feedback from participants. A semi-structured interview method was utilized to conduct this research. This method of research afforded me some flexibility, while still adhering to an interview guide, thereby gaining access to important topics and issues that were pertinent to the problem at hand (Qu & Dumay, 2011).

I contacted all of the Morris County School Superintendents from District Factor Group (DFG) school districts via e-mail to seek permission to conduct this study with school administrators who were employed in their respective districts. Those school districts contained elementary schools, middle schools, and high schools. Included in the e-mail to each superintendent was an explanation of the study, an inquiry as to whether she or he would be willing to allow her or his school administrators to participate, and the interview guide that was used during the interview, which was vetted by the jury of experts prior to the e-mail being sent. Following the granting of permission by the respective superintendents, all school administrators were solicited via a personal e-mail. Included in these e-mails was the same information that each superintendent received. Every school administrator who replied in the affirmative to participation in the interview received and then signed a consent form prior to beginning the
interview. Upon completion of each interview, I took these signed forms and copied them, and then returned the original copy to the respective participant within 2 weeks.

As Creswell (2009) noted, “The idea behind qualitative research is to purposefully select participants or sites that will best help the researcher understand the problem and the research question” (p. 178). After going through this process, the participant pool was narrowed down to 13 participants from DFG I school districts in northern New Jersey.

**Instrumentation**

An interview guide comprised of nine questions was created to help guide the interviews. Table 1 shows the connection between each research question and the corresponding research question that lead to the final instrument. These questions were based on two research questions and four sub-questions that emerged from the review of the literature base. A separate data collection instrument was used in an effort to obtain background information about the participants, including: age, number of years as an administrator in the current district, number of years as an administrator overall, and number of years of professional service in the field of education (see Tables 2-5).
**Table 1**

*Research Questions and Corresponding Interview Questions*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Corresponding Interview Question(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What roles do school administrators play in integrating technology in their schools?</td>
<td>Q01; Q02; Q07</td>
</tr>
<tr>
<td>How do school administrators perceive the integration of technology in their schools in terms of the Technology Leadership, Management and Policy Pyramid?</td>
<td>Q03; Q04; Q05; Q06</td>
</tr>
<tr>
<td>How do school administrators perceive their schools in providing organizational integration activities (professional development and blending technology with the curriculum)?</td>
<td>Q03; Q04</td>
</tr>
<tr>
<td>How do school administrators perceive their schools in providing maintenance activities for the technology currently in their district?</td>
<td>Q05</td>
</tr>
<tr>
<td>How do school administrators perceive their schools in providing planning activities for future technology acquisition?</td>
<td>Q06</td>
</tr>
<tr>
<td>What is the school administrator’s vision of committed leadership regarding technology integration?</td>
<td>Q07; Q08; Q09</td>
</tr>
</tbody>
</table>
Table 2

*Ages of Participants (in ranges)*

<table>
<thead>
<tr>
<th>Age Ranges</th>
<th>Number of Participants in Each Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>0</td>
</tr>
<tr>
<td>30-39</td>
<td>4</td>
</tr>
<tr>
<td>40-49</td>
<td>4</td>
</tr>
<tr>
<td>50-59</td>
<td>4</td>
</tr>
<tr>
<td>60+</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 3

*Total Number of Years as Administrator in Current District*

<table>
<thead>
<tr>
<th>Total Number of Years as Administrator in Current District (in ranges)</th>
<th>Number of Participants in Each Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>5</td>
</tr>
<tr>
<td>6-10</td>
<td>5</td>
</tr>
<tr>
<td>11-15</td>
<td>3</td>
</tr>
<tr>
<td>16-20</td>
<td>0</td>
</tr>
<tr>
<td>21-25</td>
<td>0</td>
</tr>
<tr>
<td>26-30</td>
<td>0</td>
</tr>
<tr>
<td>30+</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 4

*Total Number of Years as an Administrator (overall)*

<table>
<thead>
<tr>
<th>Total Number of Years as Administrator (in ranges)</th>
<th>Number of Participants in Each Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>3</td>
</tr>
<tr>
<td>6-10</td>
<td>4</td>
</tr>
<tr>
<td>11-15</td>
<td>2</td>
</tr>
<tr>
<td>16-20</td>
<td>3</td>
</tr>
<tr>
<td>21-25</td>
<td>1</td>
</tr>
<tr>
<td>26-30</td>
<td>0</td>
</tr>
<tr>
<td>30+</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 5

Total Number of Years of Professional Service in the Field of Education
(Combining teaching and administrative experience)

<table>
<thead>
<tr>
<th>Total Number of Years of Professional Service in the Field of Education (in ranges)</th>
<th>Number of Participants in Each Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>0</td>
</tr>
<tr>
<td>6-10</td>
<td>1</td>
</tr>
<tr>
<td>11-15</td>
<td>2</td>
</tr>
<tr>
<td>16-20</td>
<td>3</td>
</tr>
<tr>
<td>21-25</td>
<td>2</td>
</tr>
<tr>
<td>26-30</td>
<td>1</td>
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<td>4</td>
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<tr>
<td>36-40</td>
<td>0</td>
</tr>
<tr>
<td>40+</td>
<td>0</td>
</tr>
</tbody>
</table>

An interview guide that was used to facilitate each of the 13 interviews was submitted to a jury of experts prior to the interviews taking place. The experts reviewed the instrument for validity and reliability, made recommendations to me and after amendments were made, approved of its effectiveness.

Qualitative interviews “provide in-depth information pertaining to participants’ experiences and viewpoints of a particular topic” (Turner, 2010, p. 754). While there are many qualitative interview designs, a semi-structured approach afforded me the opportunity to ask
each participant the same line of questioning, but also allowed for follow-up questions to be asked when applicable, appropriate, or necessary. I asked at least one follow-up question in most of the interviews, which enabled a participant to either expand upon a thought or clarify something that was stated.

The fully vetted interview guide (see Appendix B) was designed to prompt deep and rich responses from the participants. In order to effectively do that, open-ended questions were constructed and utilized. The jury of experts was imperative that the effectiveness of these questions be optimized, as some open-ended questions do require a more robust response than others. In referencing the use of effective open-ended questions, Turner (2010) noted, “Researchers desiring to conduct such an investigation should be careful that each of the questions will allow the examiner to dip into the experiences and/or knowledge of the participants in order to gain maximum data from the interview” (p. 757).

Tables 2 through 5 present the background information about the participants. The form used to gather this information contained five questions (see Appendix A). Included on this form were questions that asked for the assigned pseudonym, so as to ensure confidentiality, the age of each participant, the number of years as an administrator in the current district, the total number of years as an administrator, and the total number of years of professional service in the field of education.

Each interview was recorded using two digital voice recorders. Prior to each interview taking place, permission for recording the session was granted by the respective participant. Also, I made participants aware of my role and the purpose for conducting this study. This both established my credibility as a researcher and provided each participant with a sense of purpose and meaning for the upcoming interview. During the data collection, I assured the
confidentiality of each participant by assigning a pseudonym. Appendix B contains the nine questions from the interview guide that flow from the two research questions and four sub-sections.

Jury of Experts

In order to validate the data collection instrumentation, a jury of experts was assembled. Three experts were used in the process. The jury of experts consisted of a New Jersey Superintendent in a DFG I district, a professor in the field of education leadership and former assistant superintendent, and a professor in the field of education leadership whose expertise related to research. These experts studied the design instrument and made suggestions that improved the viability and quality of my interview approach. Upon making the suggested amendments, I re-submitted the instrument, and the jury of experts then collectively approved the validity and reliability of the instrument for the purpose of this study.

Each expert was sent an e-mail that contained two data collection instruments: (a) the two main research questions and four sub-questions and the nine interview questions that were developed based on the review of the existing literature, and (b) the four questions that gathered the background information from the participants, including age, number of years as an administrator in the current district, number of years as an administrator overall, and number of years of professional service in the field of education. Also, I e-mailed each person to explain the purpose of the research. The data collection instrument was organized in a table format, with each of the nine interview questions aligning with some or all of the two main research questions and four sub-questions. The experts were tasked with reviewing the instrument to ensure its validity as a data collection tool and providing a written explanation of their perceptions via e-
mail. Following this written feedback, I communicated with each of the experts to confer and review their perceptions of the validity of the instrument.

**Methods for Data Collection**

Permission to conduct this study was obtained from the Seton Hall University Institutional Review Board (IRB) on May 9, 2016. Prior to obtaining this permission, much planning and many details were considered in order to make these interviews viable. Where and when will the interview take place, how long would each interview take, and all details of the solicitation of information were critical components of the process.

I scheduled each interview at a mutually agreed upon time, date, and location. In all cases, the interview took place at the work office of the participant. Once the e-mail communication lead to an agreed upon interview date, I sent an e-mail to the respective participant thanking her or him for her or his participation and confirming the date, time, and location of the interview.

The first interview took place on May 16, 2016. The final interview took place on June 15, 2016. In total, 13 interviews were conducted.

**Data Collection**

I conducted 13 interviews with K-12 school principals from DFG I school districts in northern New Jersey. The semi-structured interviews consisted of nine questions, which derived from two research questions and four sub-questions. The pre-determined interview guide allowed for open-ended responses from the participants, and I probed deeper by asking follow-up questions, when I determined it was necessary or relevant. I shared the purpose of the research
at the outset of each interview and explained that the two audio recorders would be used afterwards to help him transcribe and analyze the content of the interview.

**Data Analysis**

After conducting the interviews, I listened to the audio recorder with the goal of transcribing the content. During this process, I studied the transcripts for common themes or patterns that emerged. Creswell (2009) noted that the process of data analysis, “involved preparing the data for analysis, conducting different analyses, moving deeper and deeper into understanding the data, representing the data, and making an interpretation of the larger meaning of the data” (p. 183). Creswell (2009) also noted that analyzing data from qualitative interview research is an ongoing process, and one that involves “continual reflection about the data, asking analytic questions, and writing memos throughout the study” (p. 184).

In order to most effectively gather data, certain questions were asked that related to specific elements of the integration of technology. Table 1 provides an overview of the link between each research question and the corresponding interview questions that were posed to each participant.

Three interview questions (questions 1, 2, and 7) derived from research question 1, and these questions asked each participant to articulate her or his perceived position as technology leader of the school. Two interview questions (questions 3 and 4) derived from research question 2a, and they asked each participant to articulate her or his perception of professional development related to technology integration that was ongoing in the school. One interview question (questions 5) derived from research question 2b, and one interview question (questions 6) derived from research question 2c. Lastly, three interview questions (questions 7, 8 and 9)
derived from research question 2d, and they asked each participant to articulate her or his vision for her or his school regarding technology integration.

Ultimately, I analyzed the data by reading the transcripts, establishing and organizing the common themes and patterns that emerged via coding, and interpreting the meaning of the collected data. Chapter IV and Chapter V detail the research findings.

**Ethical Considerations**

As a qualitative researcher, adhering to strict ethical standards related to the process of collecting, analyzing, and disseminating data is of paramount importance. The entire discussion from each of the interviews was recorded using two digital voice recorders. Prior to each interview commencing, permission for recording the session was granted by the participants. I also made participants aware of my role and the purpose for conducting this study. This both established my credibility as a researcher and provided the participant a sense of purpose and direction for the interview. During the data collection, I insured the confidentiality of each participant by providing a letter, as opposed to a name, for each person. Near the end of each interview, a deliberately open-ended question was asked that would allow for each participant to share information that would elaborate on any or all of the previous questions asked, as well as potentially any new information related to the general topic.

The audio recordings, and any subsequent analysis in writing that was saved solely on an external hard drive (flash drive), was kept in a secure, locked safe at my residence.
Summary

Chapter III explained the qualitative research utilized in this study. This included the research questions, population and sample used, instrumentation used, methods and data collection, the importance of the jury of experts, ethical considerations, and the process of data collection and analysis.

After applying to, and gaining approval from the Institutional Review Board for Seton Hall University, I conducted 13 interviews. The guiding force behind these interviews was the conceptual framework of this research study, which is Collins’s (2009) Technology, Leadership, Management, and Policy Pyramid. Through the use of an interview guide, participants were asked to explain their perceptions of the integration of technology at their schools as it related to this pyramid.

Prior to the interview research commencing, a jury of experts was formed, which was comprised of a New Jersey Superintendent in an I district, a professor in the field of education leadership and former assistant superintendent, and a professor in the field of education leadership whose expertise relates to research. These experts studied the design instrument and made suggestions that improved the viability and quality of the interview approach. Upon making the suggested amendments, I re-submitted the instrument, and the jury of experts then collectively approved the instrument, or interview guide, that was used in the interviews.

Upon completion of the data collection, I transcribed the audio recordings from each interview. During this process, I analyzed the data and searched for themes that emerged. In order to properly organize the material, coding was necessary. This “involved taking text data or pictures gathered during data collection, segmenting sentences (or paragraphs) or images into categories, and labeling those categories with a term, often a term based in the actual language of
the participant” (Creswell, 2009, p. 186). Transcripts from these interviews are included in Appendix B, and the findings of this research are detailed in both Chapter IV and Chapter V.
Chapter IV
RESEARCH FINDINGS

Introduction

The purpose of this study was to explore the integration of technology in K-12 schools. I adopted a qualitative approach in order to most effectively gather data. Thirteen school principals participated in the study. The grade levels of the principals varied and representation from all K-12 grade levels was achieved in this study. The qualitative approach was essential to understanding the perceptions of these school principals. All of the research questions from the semi-structured interview guide pertained to technology leadership, so the research allowed for deep insights from the leaders who attempt to lead the integration of technology on a daily basis.

I conducted the 13 one-on-one interviews with principals from high schools, middle schools, and elementary schools in northern New Jersey. The aforementioned interview guide which consisted of nine questions was used during each interview and, in some cases, follow-up questions were asked either to dig deeper into a topic or clarify a previous response. This instrument was designed to explore the perceptions of school principals regarding the integration of technology, particularly as it related to Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. All interviews were recorded with two audio recorders, with one recorder acting as a backup. Each interview was transcribed and upon analyzing and coding all of the data, common themes and patterns related to technology integration emerged. The findings from this research are addressed in this chapter. Chapter V will provide further detail and also compares these findings to the literature base outlined in Chapter II.

The findings presented in this chapter are based on the following two research questions, with sub-questions (a – d) for question 2:
1. What roles do school administrators play in integrating technology in their schools?

2. How do school administrators perceive the integration of technology in their schools in terms of the Technology Leadership, Management, and Policy Pyramid?
   a. How do school administrators perceive their schools in providing organizational integration activities (professional development and blending technology with the curriculum)?
   b. How do school administrators perceive their schools in providing maintenance activities for the technology currently in their district?
   c. How do school administrators perceive their schools in providing planning activities for future technology acquisition?
   d. What is the school administrator’s vision of committed leadership regarding technology integration?

Analysis of Research Findings

The following common themes emerged from this research: (a) each of the principals considered herself/himself a technology leader of her/his school. In performing the role of technology leader, constant communication with, and support of staff, were commonplace; (b) leading by example, especially with technology, allowed for a more fluid integration of technology for each school. A second impact principals’ uses of technology had was that it enabled them to more easily stay in contact with parents and other stakeholders; (c) lack of proper follow-up and lack of budgeting for outsourced PD were the biggest inhibitors of investment in these types of trainings. However, PD taught by staff in the district often times was found to be more beneficial, and it also allowed for more follow-up PD at meetings such as
team meetings and faculty meetings. Turn keying becomes a big component of staff PD. Most of the participants indicated that the PD was a combination of hands-on and informational PD sessions; (d) most participants saw an increase in the use of effective use of technology in the classroom. One participant stated, “I’ve seen an increase in the use of technology in all the classrooms. Umm, to the point where teachers are fighting for time with the Chromebook carts.”

It is important to note that this study was conducted from a limited sample of 13 high school, middle school, and elementary school principals from school districts in northern New Jersey. All of the principals represented DFG, District Factor Group I schools. Due to this small sample, caution is recommended when applying these findings to other school districts or educational settings.

Lastly, to protect the anonymity of participants, pseudonyms were assigned for the 13 participants. These pseudonyms are: Alpha, Bravo, Charlie, Delta, Echo, Foxtrot, Golf, Hotel, India, Juliet, Kilo, Lima, and Mike.

Results of Interviews

Research Question 1: What roles do school administrators play in integrating technology in their schools?

The purpose of this research question was to gain a broad sense of the principal’s view of technology leadership. The three interview questions (questions 1, 2, and 7) that were derived from this research question allowed each participant to articulate her or his perceived position as technology leader of the school.

The first question asked, “How do you perceive your role as technology leader of the school?” Each of the 13 participants strongly proclaimed themselves to be the technology leader
of her or his school. The most common theme brought up by the participants was communication. Collectively, they felt as though communicating expectations and relevant information about technology was probably their most important role as technology leader of the school. Kilo stated,

My role as principal and technology leader of the school is to make sure I’m constantly communicating with the teachers and with our technology coordinator to make sure the teachers and students have the, uhh, technology they need to help supplement the curriculum, as well as meet the technology plan that we currently have within the district.

Along with communication comes the concept of facilitating as a leader. Charlie said, “I feel like I’m the facilitator. Umm, I make – I ensure that there’s a common vision that’s communicated to the staff, students and other stakeholders.” Charlie continued, “And I find other leaders to be part of a team that helps the staff integrate technology into the curriculum.”

Other participants believed that the role of technology leader of the school was to provide context by creating an environment for technology integration and guiding the integration of technology by increasing the comfort level of its use by staff members.

Foxtrot is the point person for all things technology. Foxtrot stated,

I see it as being incumbent upon me to help steer the ship when it comes to our technology initiatives, but to work through all of our stakeholders to help us with that. Whether it’s committees, administration, teachers, professional learning communities – things of that nature.

Due to the varying degrees of need among the staff, and specifically those who are not as comfortable using technology, Golf stated, “I think my role is to model technology use as frequently and as efficiently as possible.”
Mike expressed that as a school leader her responsibility includes every aspect of leadership, and technology is one of the major components. Juliet provided further insight by offering that he does not necessarily need to come up with the idea for technology integration, but rather, it is his role to support it, embrace it, and help the teachers find a way to execute it.

The second question asked, “How does your use of technology impact teachers, staff and other stakeholders in the district? Please be specific.” First of all, it is important to stress that the first and second questions provided data that might have overlapped due to the nature of the questions. Inherently, an administrator’s role and the need to model the use of technology tended to go hand-in-hand for the majority of the participants. Many of the participants expressed that leading by example was an important way to gain the trust of staff members as it relates to technology integration. Modeling the use of new technology initiatives or software was an important way to address its impact on staff members. The importance of communicating with other stakeholders, such as parents, was deemed invaluable from the standpoint of the school leaders. Educating staff members was also important to many of the participants. They viewed using and modeling technology as a means of teaching staff members both the use and benefits of said technology in a classroom setting with students. As it relates to the use of technology, Echo stated, “I think I have to be a role model and practice what it is that I’m asking teachers to do.” Doing so will help foster a sense of belief and trust in what Echo is asking the staff to do.

Modeling the use of technology has far reaching implications. This modeling was seen as very impactful on teachers, but also on other stakeholders. Foxtrot stressed the importance of modeling technology use by stating, “It’s what drives most, if not all, of our curricular initiatives from our student information system to the way that we communicate with both teachers and
parents.” Lima concurred by expressing that the ability to try new things was imperative. For Lima to be most effective, and to influence teachers to use emerging technology as an integral part of their instruction, she must be willing and able to adopt new strategies, approaches, and technologies, and furthermore, she must model the proper usage for staff.

The majority of the participants expressed that being knowledgeable about technology or at least possessing an interest in learning about it was important. This knowledge or desire to learn about technology goes a long way in impacting the use of technology by staff members. Being knowledgeable allows for the demonstration of technology use in lessons or in staff meetings.

Kilo furthered this point by stating,

I think as a principal or supervisor, you have to lead by example by providing them the opportunity to use the technology, see yourself using the technology, and also the benefits of using technology because the use of technology in and of itself isn’t a reason to use it.

The seventh question asked was, “How do you perceive your role of committed leadership regarding technology integration?” Balance was a common theme among the participants’ responses to this question. Leading the way with technology integration entailed modeling, communicating, and making wise choices, but also knowing when to harness either the use of, or extent of technology use was important. Along those lines, establishing a vision was considered critical in demonstrating commitment by leadership. The seventh question is also addressed in the final research question, and the findings are detailed further in that section.

The second research question has four sub-questions. Since each sub-question was answered independently, each of the next four research questions falls under the umbrella of
research question 2, which is, How do school administrators perceive the integration of technology in their schools in terms of the Technology Leadership, Management, and Policy Pyramid?

**Research Question 2a:** *How do school administrators perceive their schools in providing organizational integration activities (professional development and blending technology with the curriculum)?*

The two interview questions (questions 3 and 4) that derived from this research question allowed each participant to articulate her or his perception of professional development as related to technology integration that was ongoing in the school.

The third question asked, “How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?” Almost all of the participants explained that follow-up to whatever PD takes place is of paramount importance. However, follow-up did not always take place. This was due largely to time constraints and contract time that did not allow for follow-up PD to take place. Another common theme was that schools used staff in district to perform most of the PD. In some cases, PD took place during team meetings and staff meetings, during which staff members modeled best practices for using technology. In some cases, outside companies were retained to perform PD for technology integration. The lack of follow-up after such outsourced PD trainings was the primary reason that this was not more commonplace. Lack of funds played a role, but it was not the driving force behind not outsourcing technology integration PD needs.
Kilo stressed the importance of well-rounded and follow-up PD being available when he stated the following:

In the last few years, we changed the way we do PD for technology, where now there’s training opportunities both inside the school and outside, but more importantly, there’s follow-up with PLC’s (professional learning communities) and, umm, turn keying by the staff to assess how they’re using the technology; if it’s beneficial, what needs to be tweaked, what needs to be budgeted for next year. Usually, our grade level teams lead the professional development.

Golf enacted a more loosely structured form of PD via unconference, in which staff have a choice in what they want to learn about. “It gave staff members a lot of ownership over their learning, and it also gave the principals and supervisors an opportunity to demonstrate things that we were interested in.”

Alpha seemed to believe that in-district PD was the most beneficial; “I find that the most effective PD is school based and is, umm, stuff that you are doing with your colleagues.” Delta concurred with this assessment of technology PD. Further, the theme of not outsourcing for technology PD was outlined by Delta, as follows:

We had brought in an outside group once, and it did not go well. Umm, it’s not that they didn’t know their stuff, it’s not that they – but they didn’t know our school. And I would tell you that the best PD comes from the people who are doing well inside your building. You know, when you have experts who are invested in the school, and know what the school looks like, and what our culture is, umm, you’re going to get a much better PD day.
The majority of the participants, including Hotel, expressed that PD was most beneficial when it was conducted with a hands-on approach. However, Hotel emphasized the fact that technology PD in his school was never informational in nature because in order to absorb whatever one is learning, it is crucial to actually be doing it, as opposed to listening and watching.

The fourth question was, “Explain tangible benefits you see in the classroom from these professional development opportunities.” The most tangible benefit came in the form of a principal who brought one of the teachers to a technology ISTE (International Society for Technology Education) workshop. After being inspired by this workshop, he has now become the go to person for technology instruction at the school. This individual was described as communicating technology ideas to the staff on a regular basis. “He’ll send out an e-mail to the whole staff saying you know, you should try this,” Bravo explained.

Charlie seems to have seen an increase in the tangible use of technology following PD training opportunities. “This school probably would be ready for a one-to-one initiative – even though we’re elementary. They would be ready for a one-to-one in second grade because that’s how much technology they’re using,” Charlie elucidated.

Echo seemed to see the benefit of technology PD as transforming the way instruction takes place. In addressing the research question that asked principals to explain how they perceived organizational integration activities in their school, Echo stated,

The tangible benefits that I see is our classrooms have become more student centered.

Teachers are using less standup and deliver talking at children, and they’re really being
the guides on the sides and the facilitators of learning, and differentiating is happening naturally as a result of the technology and the learning activities that are affiliated with it.

Overall, the majority of the participants expressed that the tangible benefits of technology use that they witnessed came in the form of witnessing student engagement. India described much of what an administrator would hope to see during an effective lesson: just about everyone is using a device, kids are huddled around and conversing in a meaningful way, and all students are engaged and on task. India likened the integration of technology and benefits of technology PD to everyone becoming a family of learners.

**Research Question 2b:** *How do school administrators perceive their schools in providing maintenance activities for the technology currently in their district?*

One interview question (questions 5) was derived from this research question.

The fifth question stated, “Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.” All of the participants explained the process in his or her school for reporting an issue with technology, but few addressed the activities or training that could proactively address the maintenance of technology and/or the infrastructure.

The majority of the participants expressed that the area of technology maintenance was improving, but it would certainly benefit from more streamlining. In some cases, there were not enough staff employed to address the myriad technology issues, while in others, there were ample IT employees, but said employees often did not quickly address the issue at hand. Furthermore, this research question probed deeply regarding the existence of maintenance
activities. No participants reported that any activities existed that would constitute a culture of maintaining technology or infrastructure by non-IT staff personnel.

Delta saw growth and improvement in the area of technology maintenance, as more staff have been hired. The process has continued to evolve into a more streamlined approach, but it was not where it needed to be in Delta’s opinion. She stated,

I think infrastructure wise, we’ve come a very long way. We’ve gone from having one access point for every three classrooms, to every two, to now every one. You know, I think we need to hone our own reporting, you know, helpdesk situation a little, but we’re going to have an additional tech (person) in this building next year as we go one-to-one, so I think it’s going to help us along the way as well.

Golf relayed concerns about the length of time it took for some technology related repairs. After I asked a follow-up question that inquired about the process by which an IT person would address a technology repair, Golf stated,

And that’s where I think it’s more difficult in a larger district with a lot more devices and a lot more things wrong and a lot – I don’t want to say less accountability – it’s not that, but your visibility is less, so it’s difficult to always find people who are trying to fix things (technology). I was in a K-8 school before; it’s a much more manageable situation because you know all the players and you know where everyone is at all times. And in a bigger – it’s just different – not necessarily better or worse, but it’s different.

Echo seemed to possess similar sentiments. Echo described the process of repairing technology or infrastructure needs by saying,

I think we really need to improve the communication of maintenance repair. Very often we put things into helpdesk, and the technicians don’t always get back to the teachers
about when things are fixed, and what was wrong and how it can be prevented in the future, so I think we need to tighten communication in that area.

Research Question 2c: How do school administrators perceive their schools in providing planning activities for future technology acquisition?

One interview question (questions 6) derived from this research question.

The sixth question asked, “How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.”

The majority of participants expressed that the planning of and for future technology acquisition was primarily a function of the central office. However, both strategic and technology plans were referenced when the participants detailed the planning processes. In other words, the participants felt as though planning for the technology needs of one school were not done without also addressing the needs of the entire district, for better or worse. Importantly, each of the participants also referenced the need to budget for future technology. Without a doubt, this research question required the most follow-up questioning in order to clarify the expectations for future technology acquisition. Whether the planning was school-based or district-based, I was interested in gaining insight into the process of planning for technology that was present in the respective schools at the moment when the research was conducted.

Charlie stated, “That’s actually – that’s going to be district-wide.” When I prompted further regarding what input the school had, Charlie continued, “The administrators have been asked for input. They’ve (the district) asked us: do you need more technology coaches, what kind of training do you think your teachers, your faculty will need?” Charlie also mentioned that
most schools in the district had an independent technology committee that was driven by the technology innovators in each building.

Bravo’s response to this question had a theme similar to that of Charlie. Bravo stated, “I really believe that’s (planning activities for future technology acquisition) more of the district level, umm, decision.” Bravo continued,

I do put money in my budget line for technology, so if I decide I want to, you know, buy a couple more Chromebook carts next year, maybe that will be possible. But it still has to go through the district – the Director.

Alpha responded that, “we really have very little say in acquisition.”

Golf mentioned that staff input was one of the most important components of planning for future technology acquisition. “The most important thing to me is to go to my teacher leaders that are really interested in specific things, ask them what they want, and plan accordingly.”

After I prompted by asking whether there was a level of school-based autonomy in such a planning activity, Golf stated the following:

Yes. Even in a larger district, yes. And part of that is encouraging staff to have the voice to say, you know my students are struggling in math; ISL is a great program, and then opening it up to staff by asking if ISL is something that all of you are interested in or some of you are interested in, and then purchasing it. But I think it’s a real mistake to just purchase without getting that stakeholder input first.

In referencing the school’s technology plan, Kilo said, “The 3-year technology plan is a guideline as to what we’re trying to address, whether that be typing or any other initiative. Uhh, that’s the building block in where our training takes place.”
In the case of the one school house district, which is distinctly different from a multiple school district, Foxtrot opined, “Yes, we have a 3-year technology plan that we update annually. And so then that technology plan becomes really a fluid, living document because we are updating it every 3 years.” After I prompted about the approach to the technology plan, an interesting insight came from Foxtrot, who stated,

Yeah, I just, you know, I think that what are you going to do? You’re going to have a three-year plan, and then towards the end of the third year, you’ll be like ugh, it’s time to update this thing! So I want to know, based on this year, what have we accomplished and what do we need to continue to work towards so that next year, we can update the plan and report out more genuinely on what the plan really is. So, I don’t see it as prescriptive; I see it as a living document just like a teacher lesson plan that can be modified and adjusted each year.

**Research Question 2d:** What is the school administrator’s vision of committed leadership regarding technology integration?

Three interview questions (questions 7, 8 and 9) that were derived from this research question allowed each participant to articulate her or his vision for her or his school regarding technology integration. Collins (2009) noted that all three sides of the technology leadership, management, and policy pyramid must be executed simultaneously, and with committed leadership, in order to see improvement and attain excellence in technology integration.

The seventh question asked, “How do you perceive your role of committed leadership regarding technology integration?” Several themes emerged in the responses to this question. Modeling, physically demonstrating the myriad uses, and communicating the expectations of
technology integration were common responses among the participants. Foxtrot stated, “First and foremost, it is absolutely of paramount importance that, as the leader of the district, I remain committed to demonstrating to the staff and to the students that we want to be (you hear it all the time) on the cutting edge of technology.” Echo articulated,

I feel that I really need to be a change agent for my school, and that’s just not my teachers; it’s for my students, it’s for my parents. Everybody needs to see the purpose of why something is happening. So it’s my role to educate everyone about the benefits of using technology in the classroom.

Golf stated,

I think it’s balancing all three (sides of the technology pyramid) appropriately, and I think lots of leadership is strictly balance. And I think that’s explained to staff that this is a process, it’s a long-term process, and it involves many different components and then balancing those components.

The majority of the participants also emphasized the need to gather staff input before moving ahead with too many technology initiatives. Further demonstrating that not talking about committed leadership was the most important component for many participants. In referring to the level of committed leadership regarding technology integration, Charlie said, “I also know that I have to work with my staff on how do you truly integrate it (technology) – not for technology sake, but to enhance instruction.” Kilo suggested, “As a principal, what I try to do is get our School Improvement Panel committees, our team leaders all on board with the vision as to where the school is going.”

The eighth question asked, “What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?” This
question was written and designed to prod the participants to an even deeper level. I believed that asking this open-ended question near the end of the each interview would allow the participants to elaborate or expand on any previous comments or thoughts, as well as share anything that was not yet discussed that they considered pertinent to the study. The responses to this question were interesting, and they provided insights into each individual principal’s inner thinking as it related to technology integration.

The responses to this research question provided no common themes. but each of the participants referenced different components of Collins’ (2009) Technology Leadership, Management, and Policy Pyramid in their respective responses. Foxtrot provided perhaps the most lucid description regarding the need for professional development as it related to technology integration. In referencing the need for PD, Foxtrot said,

I think that a lot of schools – a lot of school districts - and then a lot of schools, in a larger setting, might be micromanaged by a larger office, to say ok, we want you to integrate technology into the classroom, but they’re not really sure what that means. They may not really have their own hands-on experience with it, so I think you kind of have to make sure you’re in the roots of the tree and understand it when you talk about technology integration, you can define it, and it’s something that’s tangible to those that are in leadership positions, so that they understand what it is.

Alpha offered a unique perspective related to technology acquisition by stating,

And I think that we need to look beyond that, umm, one of the things that I don’t know has kept pace with acquisition is technology instruction; computer technology instruction. So I think we need to move forward with things like coding, that kind of work. Umm, unfortunately, our technology curriculum is a few steps back from that.
Interestingly, Alpha seemed to find that the execution of technology acquisition was going well, but that the planning and implementation was lagging. This opinion was found to be an outlier, as Alpha was the only participant to provide such a response. However, even though this opinion was only reported by one participant, it does give credence to the significance and importance of Collins’ (2009) Technology Leadership, Management, and Policy Pyramid, and specifically to the notion that all three sides of the pyramid must be effectuated simultaneously with committed leadership in order for the model to be supported.

Interestingly, insights by a few participants included the need for teachers to do more of the legwork regarding technology integration. Due to a lack of time and the many other responsibilities principals have, there is more and more pressure on teachers to do their due diligence and to share those resources with one another in the hopes of effectively integrating technology. Teachers doing more of the legwork was found to be an outlier in terms of data collection, but it does lend itself as an interesting perspective.

The ninth question asked, “Using one, two, or three words, how can you describe the essence of technology integration in your school?” I believe this question is a difficult one, but it allowed for a succinct and interesting assessment from each of the participants. In order, here are the results of this question.

Alpha: “Striving to achieve balance.”

Bravo: “We are lucky!”

Charlie: “Nascent. There’s excitement.”

Delta: “Real world context.”

Echo: “Acceptance and encouragement.”
Foxtrot: “Essential. Commitment. Education.” To better provide context for these three words, Foxtrot stated, “In one word? We see it as essential. Another word is commitment. You have to be committed to it. And then the third part – I’ll use all three, is education. And that is very holistic in nature. You know, educating the staff and the students and how to properly use and integrate technology in the classroom.”

Golf: “Balance.”


India: “Persistent integration.”

Juliet: “Teacher by teacher.”

Kilo: “Supplements the curriculum.”

Lima: “Emerging and exciting.”

Mike: “It’s a marathon.”

Summary

In Chapter IV, the findings from 13 semi-structured interviews with K-12 principals regarding technology integration are reported. A semi-structured interview was used as a guide to facilitate the process and follow-up questions were asked when necessary. During the analysis of the research, the following themes emerged: (a) each of the principals considered herself/himself a technology leader of her/his school; (b) leading by example, especially with technology, allows for a more fluid integration of technology for each school; (c) professional development (PD) taught by staff in the district often times is more beneficial, and it also allows for more follow-up PD at meetings such as team meetings, faculty meetings, etc.; (d) most participants have seen an increase in the use of effective use of technology in the classroom.
In Chapter V, I further detail the findings as they relate to the literature review discussed in Chapter II.
Chapter V
CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to explore the integration of technology in K-12 schools. Although there are many areas to choose from regarding technology integration, I focused on three specific points, all of which were derived from Collins’ (2009) Technology Leadership, Management, and Policy Pyramid. The three sides to this pyramid are: organizational integration activities, planning activities, and maintenance activities.

In Chapter III, the methodology of the study was presented. Chapter III included the following: an introduction, the research questions, the population and sample, the qualitative instrumentation used for research, a list of the interview questions, a description of the jury of experts process that was used to validate the data collection instrument, methods for data collection and analysis, ethical considerations, a summary, and tables that presented the background information for each of the 13 participants. In Chapter IV, the results of this study were discussed.

The purpose of Chapter V is to present a summary and analysis of the research findings of this study, as well as an analysis of the nature of the relationship between the research findings and the literature reviewed in Chapter II. Also included in Chapter V are the conclusions and recommendations for policy, practice, and future research.
Analysis of the Study

Research Question 1

Research question 1 asked, “What roles do school administrators play in integrating technology in their schools?” The information gathered in this study is mostly consistent with the findings from the study conducted by Berrett, Murphy, and Sullivan (2012) in terms of the role of the administrators. Berrett et al. (2012) found that principals who achieved success in technology integration empowered mentors who were willing and able to take on the responsibility of leading the technology implementation, which means there was a level of delegating responsibility and relying on the leadership of others in order to succeed with effective technology integration. Charlie, a participant, noted, “And I find other leaders to be part of a team that helps the staff integrate technology into the curriculum.”

Where the findings of this study differ from those found by Berrett et al. (2012) is the notion that, “technology integration in schools is commonplace, so much so that educators often ignore what is thrown at them, hoping that it will disappear as many technology integrations often do” (p. 200). The findings of this study indicate that principals who provide a vision and leadership for technology integration by communicating and demonstrating the expectations of its use tend to inspire and empower staff members to use said technology in their classrooms.

Hamzah et al. (2014) revealed information that was similar to the findings of this research study regarding the role of principal as technology leader of a school. Hamzah et al. (2014) found that administrators do not necessarily have to be technology experts, but simply showing an interest in the teachers and their implementation of technology goes a long way. Alpha, the first participant, stated,
I’m not going to be a tech (technology) expert. I know how to use it and keep up with it. I use it constantly but also see the trappings and benefits of it. So it’s to try and keep a balance at my school.

Other participants expressed similar sentiments regarding the effectiveness of showing a genuine interest in technology integration.

Further, Machado and Chung (2015) found that teachers were impacted by the attitude of their principal, and their level of technology use often varied based on the support they felt. These findings were consistent with the information obtained from most of the participants. For example, Delta, a participant, noted,

So I think that my role as a technology leader is to help formulate and provide context. Umm, and that comes in a couple different ways. I’ve got to work with our teachers who are more resistant to using technology to help them understand that role, to help them, umm, become more comfortable using the technology to help become more comfortable with students knowing more about technology than they may – and that that’s ok, too.

Machado and Chung (2015) also noted that the role of a school principal has evolved from that of simply a school administrator to one in which she or he wears many hats, including that of technology leader. All participants concurred that this area of leadership was, indeed, part of their current role.

Cakir (2012) also presented findings consistent with those of this research study, including the fact that principals play a large role in successfully or unsuccessfully leading the integration in schools. The level of success achieved can be increased by showing involvement and providing support through the process of technology integration (Cakir, 2012). In this research study, a common theme was that principals perceived their role as technology leader as
imperative. Furthermore, the participants believed their use of technology greatly impacted teachers, staff, and other stakeholders. Kilo, a participant, stated,

I think as a principal or supervisor, you have to lead by example by providing them the opportunity to use the tech, see yourself using the tech, and also the benefits of using technology because the use of technology in and of itself isn’t a reason to use it.

**Research Question 2a**

Research question 2a asked, “How do school administrators perceive their schools in providing organizational integration activities (professional development and blending technology with the curriculum)?” The information learned in this research study is consistent with the findings revealed in a study conducted by Liu et al. (2012) regarding professional development as related to technology integration. All of the participants in this study stressed the importance and relevance of technology related professional development, and Liu et al. (2012) noted that, “A prerequisite to effective school technology integration programs is teacher professional development at the outset and continuing through the implementation of the innovation” (p. 577). Furthermore, the school leader contributes to this professional development process in many ways and in many stages. Kilo, a participant, stated,

In the last few years, we changed the way we do provide PD for tech, where now there are training opportunities both inside the school and outside, but more importantly, there’s follow-up with PLC’s (Professional Learning Communities) and, umm, turn keying by the staff to assess how they’re using tech, if it’s beneficial, what needs to be tweaked, and what needs to be budgeted for next year.
The findings of this research study are consistent with those of Gioko (2012). Based on a 12-month study of two different cohorts, professional development opportunities were tailored to meet the needs of each of the cohorts. Feedback from the cohorts lead to amendments in the PD, which I found to be refreshing. The majority of participants in this research study expressed a commitment to meeting the training needs of their school and staff members, which means that PD is structured based on localized needs. This type of approach cannot be effectuated without understanding the culture and climate of one’s school. Indeed, one of the main reasons participants noticed tangible increases in the effective integration of technology in their schools was because PD tended to be based on needs, and there was also follow-up PD available to those who wanted or needed it.

Research Question 2b

Research Question 2b asks, “How do schools administrators perceive their schools in providing maintenance activities for the technology currently in their district?” The content gathered in this research study is mostly consistent with the findings revealed in the study conducted by Chang (2011), in which it was found that principals who hoped to instill change and reform in schools must possess technology leadership skills and abilities. Specifically, such a principal must be skilled in five requisite trainings related to technology. Based on the five requisite trainings, which are (a) vision, planning and management; (b) staff development and training; (c) technological and infrastructure support; (d) evaluation and research; and (e) interpersonal and communication skills, The findings in Chang (2011) also support other research questions, which will be addressed in further detail under each specific subheading. All of the participants emphasized that a vision for technology integration must be present, as well as
PD training opportunities that inherently contain follow-up training opportunities. However, the findings of this research study did not completely match the conclusion of Chang (2011) regarding the need for principals to be skilled in training related to technological and infrastructure support. Most of the findings in this research study indicated that principals were aware of the technological and infrastructure support, but were not well trained in this area as a requisite for technology leadership. Interestingly, I hypothesize that training in this area could add a tremendous support structure to school principals who are attempting to lead technology integration, as per Collins’s (2009) Technology Leadership, Management, and Policy Pyramid conceptual framework.

The findings of this study were also consistent with those of a study conducted by Sharija and Watters (2012), in which two principals and five randomly selected teachers were subjected to interviews, and the principals also provided data through quantitative means, such as questionnaires and the analysis of documents. One of the leading reasons for successful technology integration in their schools was found to be their commitment to the maintenance of technology. This finding generally coincides with those of Sharija and Watters (2012), namely regarding the importance of a principal planning for and providing maintenance activities and infrastructure support. It is important to note the my distinction between providing maintenance activities and being skilled and knowledgeable about such activities.

**Research Question 2c**

Research Question 2c asks, “How do schools administrators perceive their schools in providing activities for future technology acquisition?” The connection between this study and Grey-Brown (2010) requires some level of inference. For instance, Grey-Brown (2010)
indicated that, “the vision of how and why technology is to be used in schools is critical in identifying where an institution is going with technology and how it is going to reach its goal with technology” (p. 6). Implied in this statement is that a vision of where an organization or institution is heading with its technology requires planning for the future. With that said, this research question gathered the least amount of support of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. Most principals interviewed suggested that activities for future technology acquisition rested with the central office, as opposed to with them and their staff.

**Research Question 2d**

Research question 2d asks, “What is the school administrator’s vision of committed leadership regarding technology integration?” Sincar (2013) conducted a study designed to help principals mitigate the roadblocks regarding technology integration. Those roadblocks were identified as, (a) lack of training, (b) resistance, (c) resources, and (d) equity and bureaucracy. The findings of the present study are consistent with those of Sincar (2013), especially as it relates to training, resistance, and resources. All of the participants in the present study noted that PD training was of paramount importance, but more critically, providing ample opportunity for follow-up PD training was essential. Regardless of whether the training was outsourced or provided by in-house staff, no participant expressed that lack of training was a roadblock. As noted previously, in-house PD training did generally provide more effective returns, as follow-up was more convenient and feasible. As for staff resistance to technology integration, the participants noted this resistance was probably related more so to the concept of change than to the actual technology. Much of their feedback included doing their best to take away excuses for
staff not to use the new technology or not to implement the new initiatives, which were done both by ensuring the infrastructure was running smoothly and by insuring that staff felt comfortable using the technology, thanks to PD training. Lastly, as it relates to resources, all participants discussed the need to budget for technology. This need was addressed in terms of planning for future acquisition, but also through the articulation of a vision.

The findings of this research study were consistent with those of Li and Achilles (1999-2000) who noted that, “to integrate technology effectively in schools, school administration needs to work on creating new social conditions to facilitate teachers’ learning and using behaviors” (p. 17). All participants expressed the need to inspire confidence by establishing a vision, which includes modeling the use of technology and ultimately doing what is necessary to lead technology integration. While the findings of Li and Achilles (1999-2000) pertain to both teacher and administrator perspectives, the findings from the administrative participants were similar to those of this research study.

Recommendations for Future Research

Based on this research study, the following recommendations for future research are made:

1. It is recommended that this study be conducted in a different DFG grouping with the goal of exploring the perceptions of technology integration in other socioeconomic settings.

2. It is recommended that a mixed methods qualitative and quantitative model be used in a future study in order to uncover a deeper level of information regarding the perceptions of technology integration.
3. It is recommended that a correlational study between technology professional development for administrators and the effectiveness of technology integration in the schools lead by these principals be conducted.

4. It is recommended that this study is replicated; however, participants would all derive from only an elementary, middle school, or high school setting, as opposed to representation from all K-12 settings, such as in this study.

5. It is recommended that a quantitative comparative study be conducted that compares the effectiveness of technology integration for principals who have been trained in technology and infrastructure support versus those who have no training experience in that field.

**Recommendations for Practice**

Based on this research study, the following points are recommended for practice:

1. Principals should provide ample professional development opportunities for staff members related to the topic of technology integration. However, principals must also participate in technology related professional development in order to lead the technology integration efforts effectively.

2. Principals should communicate their vision as it relates to technology integration. By doing so, it allows school leaders to effectuate all three sides of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. Providing ample technology training and follow-up training for staff, planning for future technology acquisition and what to do with the outdated technology, and creating a culture of
maintenance of the hardware and infrastructure will enable principals to both communicate and execute their vision for technology integration.

3. Principals and other administrators should communicate the contents of the school’s technology plan. Doing so will assist administrators in providing a vision that is based on something tangible. Further, staff and other stakeholders should be invited to participate in the creation and revisions of said technology plan in order to gain more input and help foster a shared vision.

**Recommendations for Policy**

Based on this research study, the following points are recommended for policy:

1. Policy makers should oversee the creating of a 3-year technology plan for the district. However, this plan should be a fluid, living document that goes through changes and amendments as time goes on, much like what happens to technology. Policy makers should not create a 3-year plan, allow the plan to come to fruition, and then create a new 3-year plan. Instead, they should work with administration and other stakeholders to ensure this plan is being executed, while also maintaining an awareness of the nature of constant changes in technology.

2. Policy makers should establish a budget that is forward thinking and will allow for the acquisition of new technologies. If principals are to effectively lead this side of Collins’s pyramid, funding plays a pivotal role.

3. Policy makers should increase funding for professional development related to technology integration. In order to most effectively implement these tools and strategies, staff members often need follow-up training. Without both the initial and
follow-up training, technology integration initiatives may not be as successful as they could or should be. Further, policy makers should develop strategies that create free or reduced cost professional development opportunities for all staff members.

**Conclusion**

The purpose of this study was to explore the perceptions of K-12 principals regarding the integration of technology in terms of Collins’s (2009) Technology Leadership, Management, and Policy Pyramid. I conducted 13 interviews with principals from elementary, middle, and high schools in northern New Jersey in order to obtain this qualitative data. Through this research, it was found that principals believed their roles included being visionary regarding technology integration. This vision includes the ability to model the use and benefits of technology, which essentially means leading all stakeholders by example. It also includes the understanding that ongoing PD training benefits these integration efforts. This research study is generally consistent with the literature base on this topic. Very few outliers existed.

Principals and policy makers must lead the technology integration in the 21st century. This is not the job of one woman or man; instead, relying on both the expertise and support of others is paramount if the most effective integration is to take place. As technology continues to evolve present day, technology leadership, more than ever, requires maintaining an open-minded and fluid approach.
References


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APPENDIX A

Data Collection Instrument: Participant Background Information
Data Collection Instrument: Participant Background Information

Please complete the following questions:

1) What is your assigned pseudonym? __________

2) Please circle the age range that fits your description:

   20-29   30-39   40-49   50-59   60+

3) How many years have you been an administrator in this district? __________

4) How many years have you been an administrator (in general)? __________

5) How many years of professional service in the field of education do you have?

   __________
APPENDIX B

Interview Guide
Interview Questions

Q01: How do you perceive your role as technology leader of the school?

Q02: How does your use of technology impact teachers, staff and other stakeholders in the district? Please be specific.

Q03: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Q04: Explain tangible benefits you see in the classroom from these professional development opportunities.

Q05: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Q06: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Q07: How do you perceive your role of committed leadership regarding technology integration?

Q08: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?

Q09: Using one, two or three words, how can you describe the essence of technology integration in your school?
APPENDIX C

Transcripts of Interviews
Interview with Alpha

Researcher: Ok, so we are starting our interview with Alpha on May 16, 2016.

Question #1: How do you perceive your role as technology leader of the school?

Alpha: I guess understanding technology first of all. I’m 59 years old so tech has changed dramatically since I came on board. I was a principal before I had a computer in my office – so, that’s how far back. It’s not I’m not like 80. So that’s 20 years ago that I didn’t have a computer in my office. So there’s been a huge loss because of technology and huge gains because of technology – so I guess my role, as I see it, is to manage that balance. I’m not going to be the tech expert. I know how to use it and keep up with it. I use it constantly but I also see the trappings of it and the benefits of it. So it’s to try to keep a balance at my school.

Researcher: The Internet 1994 – so 20 years ago – no computer. It’s actually fascinating when you actually think about it.

Question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Alpha: My use of technology; well I guess my biggest use of technology is in communication so we can communicate with parents in real time for things as seemingly minor as a finding out that a bus is running late – we no longer make phone calls. We shoot out an e-mail – knowing that everyone has a smart phone, umm, and they’ll get it. Umm, but we send out all letters, and newsletters, and all that stuff. Umm, we have a website that we do our best to keep current. Umm, and in terms of the staff, you know, it’s a benefit in some ways, umm, because I can let everybody know things all at once through e-mail, but it’s also a problem in other ways in that if you know if you ask any principal that’s, I mean, this is an elementary school, so it might be a little different than a middle school or a high school. I see the essence of the job as making
human connections, so sometimes it keeps you in the office where there are other things that you probably should be doing instead.

Researcher: Where you would prefer to be, perhaps you’re saying?

Alpha: I don’t know if it’s my preference, but because all human interactions aren’t easy or comfortable, umm, but it certainly keeps you in the office.

Researcher: Yeah.

Alpha: I mean it used to be when I started with this e-mail and different things like that, umm, people made livings out of consulting on how to manage it, and I don’t hear about these people anymore. Because they would say, umm, I’ll save a certain time of the day to check your e-mails. That’s just not working anymore. People expect responses much quicker than that. And not only do they expect responses, but you know, you need to get to e-mails and it could be from your district, it could be from parents, because they’ll assume that if you don’t answer within a few hours that you’re either ignoring them or something’s wrong. So it’s, you’re really tethered – I find – you’re tethered to the computer. Now, we have, uhh, we just this year, umm, developed a one to one initiative at the elementary level – at the high school and junior school, they go home with their chrome books. But here they, umm, have carts in the classroom, so they have a computer per student, umm, and we are also managing that to make sure that that’s going well.

Researcher: Ok.

Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced for staff in district), are they hands-on or informational sessions, and is there follow-up PD available?
Alpha: There’s constant PD available. Whether people go to it or not, including me, is another question. Umm, it’s just not always the first thing on people’s plates - that they want to deal with. Umm, but it is always available. The umm, I find that the most effective PD is school based and is, umm, stuff that you are doing with your colleagues. And that’s not always the way it’s provided; it’s not always possible to provide it that way. But that’s – that seems to be the most satisfying to them, and I think it works the best. So for instance if you have, umm, you have the opportunity to have a share, umm, during a faculty meeting where grade levels meet and go over things that they’re doing, and maybe there’s one person that’s more facile with this than others. They kind of facilitate it. That’s, that’s very, very successful.

Researcher: Makes sense. Umm, so yeah, that addresses all of that. That’s the kind of hands on PD you’re talking about.

Alpha: Yeah.

Researcher: Umm, ok. So question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.

Alpha: Well I mean, so what you want to do is you want to take away people’s excuses for not using it. Umm, and, uhh, providing safe and supportive professional development accomplishes that. So, you know, you want the PD to be used effectively in the classroom. I mean, we’ve come leaps and bounds – 5 years ago, the cutting edge thing was to have a smart board in every room. And in fact, the smart board is a very effective tool, umm, for many things. Umm, and one of the things that we did when we got Smartboards was the big question was do you give it to everybody because not everybody is going to be using it. You know, you’ve got people that are technophobes and things like that, and scoffers, and umm, would avoid it, but my argument was you’ve got to give it to everybody because you can’t give people excuses for not using it.
And there’s also an equity issue – I mean, you can’t have some classrooms with it and some classrooms without it. Unless it’s strictly a pilot. But this wasn’t a pilot.

Researcher: Yeah, that could present problems for sure if you did that.

Alpha: Yeah.

Researcher: Ok, so within the study we are kind of looking at a pyramid – 3 different approaches to technology integration. And the first one you just discussed is professional development. The second one is maintenance.

Question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Alpha: So, each school, mine included, has a tech resource person. It’s a stipended position. So, they’re sort of the first line of defense, so to speak. Umm, if they have a problem, they would come to me – not for me to answer the problem, but for me to get the appropriate person. Or they might go to the appropriate person themselves. We do our very best for teachers not to contact the tech department. Umm, our tech department is made up of four people, so I certainly do not think that they are overstuffed, especially when you consider how much there is in the district. And, umm, they’re…they’re…they are the most cooperative people in the district in many ways. So they are very successful and we really, I’m mean knock on wood – we’ve had very, very little moaning and groaning about it this year. Umm, I think if you were to ask our director of technology, why it is that our school has little moaning and groaning, it does have something to do with my leadership in that, umm, I don’t want people moaning and groaning. You know, so we try to, umm, work hard for people to understand that everybody is working towards the same end.
Researcher: Right. How would you say that you accomplished that, to ensure that your teachers align with what it is you are trying to do? Or that they understand that you are all working together?

Alpha: Well, I mean, I make it clear to them without necessarily saying it, but, umm, you know, I won’t be pleased if, for instance, umm, they start going over somebody’s head to call tech or if a tech guy comes and they, like, run him down in the hallway. I mean those are not things that I would be - I mean I’m not going to raise a ruckus about it, but that doesn’t fit in my paradigm of the way we should act. We should also be cordial towards those people and understand that they have a job that they are trying to do. And, umm, you know, we all think our thing is the most important.

Researcher: Hmm. Very good point.

Ok, so the other side – the third side of this pyramid; Question #6: How do you perceive your school in providing playing activities for future technology acquisition? Please explain how/if you refer to your school’s technology planning the process.

Alpha: I don’t really understand the question. Planning activities? Planning for using technology in education or…

Researcher: Planning for any type of technology acquisition in the future.

Alpha: Oh, for acquisition?

Researcher: Yeah, so it could be school based, it could be…

Alpha: We really have very little say in acquisition.

Researcher: Ok. Meaning you or the staff has little say?

Alpha: Both. I’m not saying I agree with that, but that’s just the way it’s worked.

Researcher: Who would you say, is that more of a front/central office type of…
Alpha: Yeah.

Researcher: Ok.

Alpha: And Board (of education). I think it’s, that’s been a shift too. I think that what has happened with technology in some ways…is…is, it’s an easy thing to get thrilled about. It’s like going to a birthday party with a big box, you know, that’s what’s going to get the kid excited. And, umm, technology is that big box right now. Umm, so, you know, you do a one on one initiative – that’s good - I’m not in any way denying that. But it’s the hard stuff - is working on the actual instruction. Some of this ends up being a check off the box kind of exercise.

Researcher: Uhuh, right. Versus the rubber actually meeting the road – as you’re saying, that’s the difficult part - to incorporate in the classroom.

Alpha: Yeah, it could be about stuff. And education is not about stuff. If it was, you know, all the stuff that is given to low performing districts would turn them right around.

Researcher: Right. Yeah.

Ok, Question #7: How do you perceive your role of committed leadership regarding technology integration?

Alpha: Same thing. Again, my role is, I think, to work on encouraging the integration of technology while making sure that we achieve a balance. And I’ll give you for instance. I have been in meetings many times in this district in the last few years – not before – where there’ll be eight or 10 people sitting around this table – not teachers, but other administrators – that all have their laptops out and there’s next to no real dynamic conversation going on. That does not represent good balance to me. Umm, it’s not necessary, frankly, unless you’re taking minutes, it’s not necessary. I know that most of the people are actually checking e-mail while they’re on, because they’ve told me. I don’t. I bring one of these (shows notebook), and I act like I’m going
to write on it at times, but I really don’t. I just listen. Umm, I’m not a good note taker. So, I’m not saying my method is that good either, because I can go out of these meetings and forget about what we agreed upon. I think that, you know, going forward, more work has to be done on finding good and profound ways of using technology in the classroom - not for the sake of using technology, but how can you get us to where we want to be?

Researcher: Ok, question # 8. What comments or observations can you add to provide researcher with additional insight in your school’s process of technology integration? This is extremely open-ended.

Alpha: Well just a few stream of consciousness thoughts. So, we are using technology certainly for research with the kids, certainly for word processing, frankly, which is, you know, a great use for it. But a lot of it centers around research or word processing, frankly. And I think that we need to look beyond that, umm, one of the things that I don’t know that has kept pace with acquisition is technology instruction; computer technology instruction. So I think that we need to move forward with things like coding, that kind of work. Umm, unfortunately, our technology curriculums are a few steps back from that. So that’s something that I think we need to look at and, I mean, I keep saying balance. I don’t think that we want an elementary school - I can’t comment on middle school or high school - but I don’t think that we want an elementary school to be so permeated by technology that it takes, umm, that stuff away that feels really good. Like, nothing is going to take the place of the picture book the teacher is reading. Now, there is the potential for the book to be available for us to put the book on the Smartboard so all the kids can look at it at the same time in clear in big and all that stuff. But this stuff isn’t going to change overnight. We’re not going to stop having classroom libraries, you know, that’s just not the way it’s going to work. Umm, so just, again, finding the balance. Umm, I also take exception. So
we’ve been to a bunch of workshops where a lot of the - a lot of the people are coming from this direction of totally independent learning; student directed learning where, because they have a laptop or Chromebook, they’re able to work at their level using the Chromebook, and, umm, I think that that, umm, is dangerous, you know? Because that sort of skips over some important things, I think.

Researcher: What important things do you think?

Alpha: Well, the community of the classroom. I mean if you are to think back on your fourth or fifth grade classroom, I don’t know if you’re thinking as much about what you learned as about the sort of classroom, the kids you’re around, the fun activities you did, the relationship you had with the teacher. So, I think that again, there’s a place for the computers but they shouldn’t supersede those other things. Umm, yeah, community of the classroom; social. I mean, you know, there’s a tremendous loss, umm, in the use of computers and electronic devices. Just before while there was a pause in our conversation, I checked my phone. I do that all too often, and I do it a lot less than most people! People are getting hit by cars, umm, there’s a cop as a local police officer who teaches DARE. The other day he walked in texting. Umm, it’s I think lead to people not being able to come straight for long periods of time. Umm, yeah, it’s some bad stuff if you don’t recognize it and work at it, and none of this is a desire to demonize technology, but I’ll tell you what - it’s bringing about some things that we probably didn’t anticipate.

Researcher: Unintended consequences?

Alpha: Yep!

Researcher: Just going back to your technology curriculum – you said it’s a little bit outdated.

Who typically would write that: a staff member or an administrator? Not a staff member and not
administrator. It’s a committee. They have a cycle. It’s something that needs to be revisited. I mean, who would’ve thought that it would be changing this quickly? It’s probably only about three years ago that we thought were hot stuff for having Smartboards in every classroom.


Alpha: Yeah.

Researcher: Good. That was a lot in number eight. I like that - that was wide-ranging. So, the ninth and final question – might be a little challenging. Using one, two, or three words, how can you describe the essence of technology integration in your school?

Alpha: I don’t know if this is what everybody would say, but I would, umm, I would say “striving to achieve balance”.

Researcher: That’s four, but I’ll let you slide (laughing)!

Alpha: “To” is a two letter word!

Researcher: And do you want to explain – you don’t have to – you did throughout the interview – but, maybe in a sentence or two…

Alpha: Yeah, and I mean when I say balance, I don’t even mean - I just mean balance on the other side of the scale with technology, but even within technology, seeing how we can balance that. Like what - I mention word processing and I mention research - but what are ways - there might be things that are much more valuable. Umm, another thing I have concerns about with technology - and this isn’t so much at this level but at the middle and high school levels…you know, I have a nephew who’s going to be a senior next year and I have a nephew who’s going to be a freshman next year, and they both, you know, almost all of their assignments and things like that are on the computer. And they’re constantly checking. Umm, so I’d like to look into making sure that that works. I think that sometimes students can have a lot of frustration with it
and I also think that it can lead to this sort of 24/7 – you know they say we have this 24/7 news cycle? Well, we have like a 24 hour, uhh, instructional cycle now. Umm, that I don’t know is always that good. I don’t think, frankly, so let me – I graduated high school in 1974, and when it was time for me to go to college, I went to college. I visited a few colleges with my buddies, umm, I didn’t really want my parents to come along, but they had other things to do, frankly. Umm, and I chose a college – I went to college. Now, parents are so involved. Do they really need to know every grade their kid is getting in real-time? Do they really need to know that? And here’s another thing about that. We’ve looked at having a portal at the elementary level, right? I have a grandson in fourth grade, and he has a portal. His parents check it all the time. But to tell you the truth, the stuff that they’re checking is very basic, like did he do his homework, uhh, what grades did he get on his math quiz or test? It’s not real qualitative stuff. I mean so this sort of thing that lends itself to being reported to the portal is the kind of reporting - the style of reporting - like the methodology of reporting is sort of new, but because of the method, what is reported is not really what we should be reporting. You know, you’re not looking at performance based assessment, you know what I mean? You’re not doing any of that good stuff; you’re not looking at reading logs or writer’s notebooks. You’re not checking the stuff that is…is, umm, characterizes the way we are seeing assessment and the connection between assessment and instruction now. Frankly, I think it’s leading to a, sort of a gotcha thing. He didn’t do his homework. Mom, get him! You know? So I don’t think that that’s helpful at all. I don’t think that – I mean, of course, a school and parents need to work together, but do we really need to feed parents’ worst instincts of being like helicopters that way? No we don’t. I don’t know what to do about it – the genie’s out of the bottle – but, I think it’s a real concern and I would – I would resist the portal at this level because I think that the real good stuff is not
going to be – not only is it not going to be revealed through a portal, but the portal will necessitate that that’s not the kind of information that is revealed. In my experience…in my experience. Now maybe there’s down the road, there’s going to be ways that parents can see more qualitative, deeper stuff that the kids are doing, but not right now – it’s not what’s happening – that I could see. My uhh, my grandson - my stepdaughter is strict. He gets wrung up all the time because he didn’t do his homework or whatever, but that’s - it’s fairly meaningless. We all know that homework is not as meaningful as…

Researcher: Yeah, kind of the superficial level of the portal is what’s getting touched on.

Alpha: Yeah. Yep.

Researcher: Well those are the nine questions. Would you like to add anything else?

Alpha: I think that the benefits of technology are easily illustrated in the job of a principal. You know, when I first became a principal, I would go and observe a teacher, and write it down and drop it off at my secretary’s desk on the way back, and she would type it up, and we’d take it from there. If I was too, frankly give this – and I love this woman – if I was to give her something - anything to type, should would be shocked! I do all my own typing. I’m not a typist. Umm, I do all of my own typing now. Probably, you know, I get anywhere between 100 and 200 e-mails a day; some of those are junk, but you still have to kind of weed through it all, and whether you should or not, you sort of get stuck, and I think that is sort of a microcosm of what can happen if we’re not careful. It’s really changed things.

Researcher: That’s a strong illustration. I mean, that’s the epitome, if you think about it. Perfect illustration.

Alpha: Yeah.

Researcher: Excellent. Ok, well that concludes our interview. I appreciate your time.
Alpha: My pleasure.

Researcher: Thank you for getting back to me, and thank you for being willing to participate.

Alpha: And just so you know, I’m retiring as of June 30 so you got me at the end of my run.
Interview with Bravo

Researcher: Ok, we are here on May 17, 2016 with Bravo. Thank you for agreeing to the interview.

Question #1: How do you perceive your role as technology leaders of the school?

Bravo: Well, we are, umm - I don’t know if you know this - if you did any research, but our school is a STEM school. We are a magnet school district, and our theme or our focus is STEM, so science, technology, engineering, and math. So the technology component of course falls under my domain. I am the leader of the building, and so it's my job not only to make sure the kids are being educated according to the common core and the curriculum standards, but also that they’re receiving as much benefit from the STEM focus as possible. So, I will sit down with our technology teachers. We have five technology teachers; someone teaches broadcast studio classes, one teaches game design, which is really using scratch programming, and one teaches movie magic and tech essentials. There are all these different classes, and as a leader of the building, I have to make sure that they are up to date, that their classes are filled and running appropriately, and I also have to make sure that all the other teachers in the building are deriving benefits from being part of the STEM school as well. So, training in Google – we…we moved to Google this year, so providing training for Google classrooms so everybody can be on the same page as far as Google Apps for education are concerned and keeping our parents informed as well about everything that we’re doing as a stem school. It’s a little bit different just being that we are STEM school.

Researcher: That’s fantastic you have four tech teachers.

Bravo: Five!

Researcher: Five, right. Five.
Bravo: And a tech coordinator.

Question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district. Please be specific.

Bravo: Well, this year I created – because the teachers were learning how to use Google classroom – I created a Google faculty classroom. I wish I used that more than I do. I can’t always think of reasons why staff would need to visit my classroom, but one example is I showed a film – we watched the film together, and I put a discussion thread through Google classroom, and asked them to go to the site and umm, I’m trying to model what I would want them to do with the kids. I probably should do more of that. Umm, you know, could I – do I sometimes have people in this office to show them – we’re going to look at a PowerPoint on, I don’t know, SGO’s or something technology in that regard. I might share some articles, umm, lots of e-mailing (laughing). That’s certainly here to stay. Umm, I brought in - regarding professional development – are you familiar with Alan November? I know he’s done some work in the area. He’s awesome, so if you ever get the chance to go see him speak or go to a seminar, he certainly is worth seeing. So I had him; I spent some PD money a couple of years ago; I had him come and one of his colleagues come and work with our staff. So, they know – I’ve attended ISTE. Umm, they know that I’m invested in technology. My use of it – other than using Google classroom – that’s probably about it.

Researcher: Ok. You’ll have plenty more to say; don’t worry. Leading into professional development now, actually.

So question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them
(are they outsourced or in district), are they hands-on or informational, and is there follow-up PD available?

Bravo: Yes to that last part. Umm, because they always have some kind of follow-up. So the Alan November example that I just gave, he has a colleague who – there are people who work along with him – part of his organization; it’s called November learning. And when I brought him to visit, the staff was so excited, and we did surveys, and they really wanted him or a member of his organization to come back. So the next fall, I brought back a woman named Kristin Hokanson. She came for a few days and worked with staff members during their planning periods. How often? It really, you know, honestly, it depends on funding I have available. We have an interim superintendent right now. The superintendent before him had a strategic plan for the district and was very specific regarding what we should do. Like, my goals had to be tied to her strategic plan. Now we’ve kind of been going through some changes, and it’s a little bit looser regarding building goals and what we do just at this school. It’s hard for me to say just exactly, like, how much we do because we’re in this transition period.

Researcher: Would you say you enjoy that autonomy, or what are your thoughts on that?

Bravo: I do enjoy the autonomy. I think - I enjoy it - I just want to make sure that if I say I’m going to do – you know, my PD is going to be, umm, whatever – let’s say more work around Google; building websites in Google; whatever I want to do. I don’t want to be told well, you should be doing something else.

Researcher: Yeah. One thing you mentioned: the staff was excited to have November or the consultant come back. Why do you think that was?

Bravo: He is just a really good, uhh, motivational speaker who teaches you something you didn’t know before. It’s not just blah, blah, blah about communicating. He shows helpful websites and
shows you people, umm, communicating with others around the world and how you can get your kids to write - if they like to write – get them on this site and show them how if you’re typing this quick website that’s .uk, you can show them what the kids in England are doing at the same - like, he gives you really good hands-on experiences that then you can take right back to the classroom and use. And it gets people thinking about the way things are and where we are going.

Researcher: Ok. So, a follow-up, kind of. Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities (what you just touched on).

Bravo: Oh yeah. I see – we also have a – there’s a teacher here. So, I went to ISTE a couple years ago in Atlanta, and I brought one of my teachers. He came back and was so inspired by what he learned – and he wants to become a Google trained educator. And so he’s been going to eduscape and different, you know – are you familiar with all those?


Bravo: All those things! And, he will now train – he’s like a go to person – here are on our staff. And this is the first year that we had – every teacher got a laptop this year – and, so he will offer little training sessions on Google, how do you set up a Google classroom. He’ll send out an e-mail to the whole staff – you know you should try this. This is a great component to use along with that. And I’ll look into classrooms all the time and see kids on devices. We are not a one-to-one. We allow kids to bring their own devices, usually a cell phone, and with teacher supervision and permission, use devices for some guided lesson. And so I see a lot of what – it’s a tremendous change from what was let’s say two or three years ago.

Researcher: Yeah, yeah. Are you comfortable with the BYOB policy?
Bravo: I’m very comfortable with kids being able to use their phones for a number of reasons. The one place we struggle a little bit is indoor recess, because I let them use their phones during indoor recess, because there’s nothing else for them to do. So if you have a phone when you’re playing a game and it’s on this game, why should I say no, you know, because they can’t be real loud because it’s in a place where someone is teaching. So the kids, you know, they’ll sit around. They’ll be like a group of boys and they’re looking at someone’s, you know, playing the game and they are cheering them on. And to me, it’s – that’s appropriate. You want to listen to music? That’s appropriate. But we say no texting, no social media, no recording, you know, we have an acceptable use policy that we want kids to adhere to. Anyway I’m getting off…

Researcher: No, all good. Ok, So the PD was the first part of the pyramid we mentioned before. The second part: maintenance activities. Question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Bravo: I’m very lucky because I have somebody who is a tech coordinator. He’s not a teacher; he doesn’t teach classes. He just takes care of our building’s tech needs. So I can call him and I can say I can’t get Safari to work on an older desktop. He’ll come and help me and help us get set up for PARCC. We did PARCC in three days because we borrowed laptops from the high school. Umm, anyway, he’s so good that they sometimes pull him to go work another building. The other buildings each have a tech coordinator, but it’s a teacher who teaches classes as well. I’m the only – the stem school so I get a tech person who’s really just the tech person.

Researcher: Logical.
Bravo: Yeah, and we have a lot of computers in this building. We have a bunch of different labs. We have, I think five labs, one is a broadcast video and lots of promo cards and MacBook carts; there’s a lot of work to do. There’s a district tech person. He’s, umm, Director. The district technology director. And he’s got some people under him; one is in charge of the student information system, and one does something else.

Researcher: Do they ever make calls to individual schools? Make visits, I should say?

Bravo: Yeah, I mean, we are switching to Genesis. We have right now Skyward, and we’re switching to Genesis, so I had to go to a Genesis training with one of them today. You know, if I needed him to come here – but they’re usually at Central.

Researcher: Ok. The third side is planning activities. Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Bravo: I really believe that’s more of the district level, umm, decision. I do you put money in my budget line for technology, so if I decide I want to, you know, buy a couple more Chromebook carts for next year, maybe that will be possible. But it still has to go through the district – the Director. Umm, am I…

Researcher: No, that’s fair. Would you say principals – or you can speak for yourself, and if you want, for other principals - would you say that they provide input or loosely provided input in those decisions for future acquisition?

Bravo: They provide input and they have to, in some sense, give approval. You know, like, I couldn’t say – if I have – there’s, there’s a district budget for technology, but I don’t think it’s going to come my way – the funding, so much. It would say my school is already – you know, we are not one-to-one, but we are closer than the other schools. I think that if I said, you know,
I want to buy, I don’t know, I want to use my tech budget to buy some new brand of some projector, like, they would flag that. Or I want to buy a couple of Smartboards. They might say, you know, we don’t think that’s a good idea. They’re $5,000 a piece, and we’re not going in that direction. We don’t want one school to have Smartboards and another school has Prometheans. You know, they keep some kind of…

Researcher: They want some kind of equity?

Bravo: They’re trying to. It’s an issue where one school’s PTA wanted to buy computers, but that’s not fair because the other school’s PTA might not be able to raise as much money as that school’s PTA. Yeah, so it’s a little, sort of all over the place.

Researcher: That’s a tough one.

Bravo: Yeah.

Researcher: Ok, question #7: How do you perceive your role of committed leadership regarding technology integration?

Bravo: I think that, again, I’m a very strong advocate for technology in schools - appropriate technology in schools. We had – I’m just going to give this one example, but we had a movie screening that all three middle schools shared in last week called Screenagers. Did you ever hear of it?

Researcher: No.

Bravo: It is about screen time for middle school aged kids and, it’s a story of this woman – she made this documentary about her daughter wanting a phone, and it just started down this road of is it good for the brain, can they multitask, they’re on their video games all the time. And they go through in the movie - like one of the options for a school is to ban, you know, New York had that – one of those little busses where you come and you put your phone in. You couldn’t bring
it into the school, and they collected the phones. And that’s not realistic, you know. I believe – I’m not, you know, an expert, but I’m fairly forward thinking, and I think it’s silly to think that we’re going to ban kids from using these devices. This is the world they live in. I don’t have a problem where if there’s homework on the board, and if a teacher says it’s ok, take a picture – if you want to take a picture, why is that a terrible thing to do? I don’t – I don’t think it’s sensible to say that we’re going to shut it all down, but I think we must do a much better job at teaching kids, and maybe teachers too, so they can help teach kids what’s appropriate, and what’s good digital citizenship, and what’s good digital responsibility so that – just like we teach, you know, in history, Government and civics, so that you can go be a good citizen in the world. We want kids to be good digital citizens in the world. And that’s how I feel. So I’m committed to technology in that regard. I don’t know the ins and outs of building infrastructure – like all the stuff that has to happen, the hardware – like on that level. I just know I want kids to be able to use technology for accessing information. How do you access – there is so much information at our fingertips – and we have to teach kids the best and most appropriate ways to get that information.

Researcher: I like the Civics analogy. Social studies teaches them Civics…

Bravo: Oh thank you. You weren’t supposed to tell me that you liked it (laughing)…

Researcher: Yeah, hahaha. I retract (laughing)…

Bravo: Question #8: What observations can you add to provide the researcher with additional insight in your school’s process of technology integration? Very open-ended.

Bravo: You know, when you’re principal, or when you’re an administrator, you usually inherit the process and you inherit – and you’re also beholden to a district’s process. So for me, I came into a school where we already had – there’s already a lot of technology in place – classes,
resources, so, for example, as part of – being the STEM school, the E is engineering, and we have something called project lead the way. Have you ever heard about that?

Researcher: No.

Bravo: It’s a pre-engineering program. I have two teachers who teach project lead the way, so all the kids in sixth and seventh grade cycle through like an elective, and eighth grade it’s the robotics part, and that is not mandatory. So the first two years, everyone has to take project lead the way. And a third year you can choose to or not. And I’m going to keep it going. I can show you – if I walk you down – I can show you what these labs look like and the kids’ designs; they use computer assisted design, and they create, I don’t know, an air eraser. And then there’s a room with plexiglass where they go and use power tools and they build it. I am so lucky to be the principal in a school where we have that. I don’t have to go fight to bring it in. I have to just make sure I maintain what’s already here. So we’re always introducing new – umm, we always had game design. This year we had a game design with robots because one of the teachers – he’s actually a STEM teacher leader – he wanted to do game design but really have the kids, umm, you know what the finch robots are? They’re like these little white birds. You can program them to...so the kids have to get this robot to go – they design these games, and they have to, you know – I sit in, and I’ve had a little bit of training, and I’m sure I couldn’t do it. But, you know, in that regard, I’m lucky. You know, I’m probably a different administrator than the other people you’re going to speak to because I think a lot of principals are fighting to get more of what they need to bring us up to the 21st-century. And I feel very lucky that I have a lot of it. So I guess one challenge that I do have would be making sure that the teachers who are not part of the STEM staff, so to speak, that I’m bringing them along too. You know the nurse
or the school nurse, it could be a language arts teacher who is just not ready to use Google classroom; you know, those kinds of challenges.

Researcher: Speaking of challenge, here you go: Question #9 – final question: using one, two, or three words, how can you describe the essence of technology integration in your school?

Bravo: We are lucky!

Researcher: Ok, that concludes our interview. Thank you Bravo for your time; I appreciate it very much.

Bravo: You’re very welcome!
Interview with Charlie

Researcher: Ok, it’s May 18, 2016. We are here with Charlie. Thank you for agreeing to participate.

Charlie: You’re welcome.

Researcher: Question #1: How do you perceive your role as technology leader of the school?

Charlie: I feel like I’m the facilitator. Umm, I make – I ensure that there’s a common vision that’s communicated to the staff, students and the other stakeholders. I also – I’m that one that pursues funding, umm, to bring in different types of technology or programs, software, things like that. Umm, so I see myself as tech – yeah, definitely the technology leader at the building. And I find other leaders to be part of a team that helps the staff integrate technology into curriculum.

Researcher: Teachers as other staff members? Is that what you mean?

Charlie: Yes.

Researcher: Ok.

Charlie: It could be teachers, it could be specialists, it could be, you know, because there are so many different specialties in this school.

Researcher: Yeah? Ok.

Ok, Question #2: How does your use of technology impact teachers, staff and other stakeholders in the district? Please be specific.

Charlie: In the district?

Researcher: Yes.

Charlie: Umm, well I’m one of the more tech savvy principals, and I have a lot of experience in training and implementing technology, and training teachers in implementing technology, so I
think I have a better understanding of how you integrate technology into the curriculum so that it’s used as a teaching tool and how to enhance instruction using technology, which is something that is probably missing right now in this district because we’re just starting the one-to-one initiative. So, umm, because I’m known as the tech savvy principal, my teachers are kind of on board now with using things now like Google Drive, so a lot of things that were paper are now all Google Drive or one drive. Or things are done through e-mail. I don’t collect things like traditional things – I don’t collect that – that’s all done through e-mail. Umm, class lists – everything we can do a computer, we do. And some of the things that I’ve done, I’ve shared with other administrators, like, umm, things, like – there’s a remind app that I have parents sign up for so when things come up, like, you know, say we have field day next week, I send a reminder via the remind app. So things like that, I’ll share with other administrators. Like how can you use technology to help your school?

Researcher: Touched on everything. Teachers, staff and all the stakeholders! Perfect.

Charlie: Yeah (laughing)…

Researcher: Question #3: The purpose of this by the way; it’s premised on the concept of a pyramid; a technology pyramid; professional development, planning activities and maintenance activities. So, this is the first of those three.

How do you perceive your school in providing professional development opportunities for staff members? For example, how many other per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Charlie: The PD has actually been, umm, pretty good these past two years. They had outside consultants coming in and they have been gearing – they have been kind of, umm, targeting their PD based on the school’s needs, so they meet with the principal and – so we had one consultant
work on Smartboards – like really using Smartboards with kids; not using it as a projector, but more as and interactive tool. And then we have a technology coach that’s been coming in to, umm, introduce lessons that are STEM based such as like, coding, robotics. And so since they’re coming – since they come on a rotation, umm, there is follow through and there’s follow-up on that, but it’s changing for next year, so I’m not sure how it’s changed for next year.

Researcher: Ok. Based on the school’s needs, huh? That’s refreshing.
Charlie: Yes (laughing)…

We made sure it was based on the school’s needs. Because I was a staff developer before.

Researcher: Ok. #4: Explain tangible benefits you see in the classroom from these professional development opportunities.

Charlie: I’ve seen an increase in the use of technology in all the classrooms. Umm, to the point where teachers are fighting for time with the Chromebook carts. This school probably would be ready for a one-to-one initiative - even though we’re elementary. They would be ready for a one-to-one in second grade because that’s how much technology they’re using. The kids are able to get on Chromebooks; they’ve used things like Google classroom. They have even shared documents with me – like if they’re doing a writing piece, they share it with me, especially if it’s to convince me why we shouldn’t have homework, or why recess should be longer. So share that with me, and then I respond. So a lot of things are done live between the teachers and the students, umm, which is something that really wasn’t done much in the previous years. But since I came in with a vision that we’re going to be a STEAM school, they’ve been integrating technology more, they’ve been taking risks, and with the PD, they feel like they’re getting the support. And now we have the surface pros. Every teacher just got it Monday.

Researcher: To take home?
Charlie: Yeah, they take it with them.

Researcher: Ok, #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Charlie: I’m really not sure about that one. I mean, we have someone who is in charge of technology - the maintenance part. We have a tech person assigned to this school and another school, and whatever tech issues come up, we just call him and he comes. I think the infrastructure – at least from my understanding – has been upgraded – was upgraded, due to PARCC. So they had already done all those upgrades. Umm, so I really – that’s really more of a central office. Whenever we have issues, we just let them know, and they come and fix it.

That’s how – that’s our experience with it.

Researcher: For classrooms as well? You’re talking about, generally speaking.

Charlie: Yes. We have, umm, they usually send an e-mail to the tech guy and he comes.

Researcher: What if there is some kind of an emergency or urgent matter that needs to be addressed in a classroom?

Charlie: It’s really not considered an emergency (laughing)…

Researcher: Ok.

All right. Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Charlie: That’s actually – that’s going to be districtwide. Because we’re deploying the surface pros – because they’re doing the one-to-one initiative and elementary is supposed to be 2 to 1, the district had to put a technology plan together that included professional development and
what it’s going to look like next year, and I think for the following year, but I’m not sure about that.

Researcher: So since it’s districtwide – do you, as an administrator, do you – let’s say, does your staff have any input into that plan? Or, how, how does that plan to go about getting…

Charlie: The administrators have been asked for input. They’ve asked us: do you need more technology coaches, what kind of training do you think your teachers, your faculty will need. They, umm, they also did a survey for all staff on technology needs. So that’s, umm, they’re basing a lot of the PD for next year based off of that survey. This school, and most of the schools, I would say, have a technology committee. And the people who are the leaders in technology, the ones who are the innovators, they’re on the committee, so they are actually the ones providing extra support in other areas; things that we’re not getting training on like Google classroom, one note. So how they’re using technology in the classroom, they’re showing other teachers.

Researcher: Ok.

Question #7: How do you perceive your role of committed leadership regarding technology integration?

Charlie: Clarify that.

Researcher: Sure. So with this pyramid I referenced, all three sides need to be working simultaneously with committed leadership in order for technology integration to be most successful. So we’re talking about committed leadership…

Charlie: Right! Like, how invested am I in it?

Researcher: Yeah. Anywhere you want to go with it. How invested are you, what do you think about it, umm, how do you act on it? Anywhere you want to go with it.
Charlie: I see. Umm, I would say that I’m pretty invested in it because I’ve seen it be successful in other districts I’ve worked in where we had an amazing technology team and a technology leader districtwide, and I saw the benefits, and coming to this district, I saw the lack of the technology and just the lack of the benefits of having technology in the school. Umm, I also know that I have to work with my staff on how do you truly integrate it - not for technology sake, but to enhance instruction. So I know that that’s something I have to work with the staff on, that is something I’ve brought up with the district, and they’ve agreed. You know they understand that the perception is, oh let’s put the kids on Chromebooks so they can watch, so they can play a game on website. It really has to enhance instruction. It’s not a babysitter for the kids.

Researcher: Ok. I really want to respond because what you just said is so key (laughing)…

Charlie: Oh yeah (laughing)…

Researcher: Ok. Question #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?

Charlie: I would have to say that, you know, coming here as a new administrator, coming here to this school, I saw where the lack was in terms of educational technology. And because it was stated early on, and I also demonstrated my, ‘expertise’, I guess, in educational technology, it became kind of like the culture for this year. Umm, plus the added bonus of the district moving to this initiative, which they’ve been talking about all year. Umm, I would say like myself and another principal, how our teachers are pushing forward – more forward in terms of the technology, compared to other schools. But I think that – and one of the things I explained to the staff was our students are digital natives. Their brains work differently because they have been exposed to things that we weren’t exposed to as kids. So, we have to teach to the way they
learn. And one of the ways is through, you know, using media, social media – whether it’s social media or just, you know, interacting with – they’re used to interacting with screens and boards, so, we have to kind of accommodate their learning styles. And many teachers are not digital natives - even the younger ones, believe it or not, which surprised me. Umm, but they’re starting to see the benefits of it. They’re enjoying it - especially now that they have their surface pros (sarcastically and seriously laughing).

Researcher: Of course!

Charlie: Now they’re thrilled. They’re like oh my gosh, I want to try this and that.

Researcher: I’m all in!

Charlie: Yeah, they’re all in now (laughing)!

Researcher: Ok, final question: Using one, two, or three words, how can you describe the essence of technology integration in your school?

Charlie: Nascent. (Like it’s just starting).

Umm, I’m trying to think. I would say there’s ‘excitement’. Yeah, that’s about it.

Researcher: Yeah, that’s a tough question.

Charlie: Yeah (laughing).

Researcher: Ok, that concludes our interview. Thank you, Charlie, for participating.

Charlie: Oh, you’re welcome (laughing)!
Interview with Delta

Researcher: Ok, we are here with Delta on May 18, 2016. Thank you for agreeing to participate.
Delta: Sure!

Researcher: Question #1: How do you perceive your role as technology leader of the school?
Delta: Umm, I think my role as technology leader in the school is to provide context. I actually - I would probably suggest that the role of technology in the school altogether is to create a real-world learning environment for kids. You know, I always talk about the idea that, you know, our students are on, you know, on their phones, on computers, on e-readers outside the school all of the time, and they come to school and then they kind of put it away. Umm, you know, one of the reasons why we, as a building, are going towards a one-to-one next year is really to bring the real world context into the school system. So I think that my role as a technology leader is to help formulate and provide that context. Umm, and that comes in a couple different ways. You know, the first one is we are creating a one-to-one environment for that learning situation and at the same time, you know, I’ve got to work with our teachers who are more resistant to using technology to help them understand that role, to help them, umm, become more comfortable using the technology, to help them become more comfortable with students knowing more about technology than they may – and that that’s ok, too. Umm, my role is to learn from those who know better than I do so that I can then turnkey it with people who may (laughing) know it, uhh, less than I do. So I think that, you know, it needs to be site-specific, it needs to be authentic, and it needs to be meaningful. I think that we also need to point out to each other through, you know, instructional rounds or whatnot, what is technology integration and what is technology for technology sake. Umm, and we need to be able to identify that to ourselves and to each other
that, hey, this is just a worksheet that now you’re doing on a computer rather than doing on a piece of paper. It’s still not meaningful learning.

Researcher: Right.

Delta: Umm, so I need to be able to have those conversations with people.

Researcher: Ok. And, in fact, it is healthy that sometimes students know what the teacher doesn’t. You know, especially as it relates to technology.

Delta: Absolutely! They all know it better than I do. I just recognize it’s something they need to know.

Researcher: Right. I teach computers, and still that’s the case sometimes, and that’s a healthy thing (laughing).

Ok. Question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Delta: My personal use of technology?

Researcher: Yes. Your personal and general use of it; the way that you use it.

Delta: That’s a great question. Umm, I don’t know. How does my personal use of technology impact the school? Umm…

Researcher: Do you want me to prod a little bit? In other words, maybe, do you model it, do you talk about it, do you show them different ways to use? Kind of down that avenue, if you will.

Delta: I’d like to think all of it. And again, I think first and foremost, I talk about it, and I talk about it honestly. I talk about my own need for getting better as well. Umm, you know, what I try to do is bring in people who are using it and using it really well in the classroom. I have to be very careful about being preachy on something that I haven’t used when I had a classroom. And technology actually shows me more than anything else, the difference in time between when I
taught and now as administrator. You know, I can talk about questioning techniques and, you know, sometimes I pull out exemplars of things about my classroom that, you know, nine years is a large gap in time with the implementation of technology. You know back then, a PowerPoint and LCD projector was using technology, and that’s not really the case anymore. Umm, so I tried to make sure that teachers who are using best practices in their classroom have a stage in which to turnkey and sometimes just to report out different things that they’re using. Umm, you know, I’ve gone paperless, uhh, almost entirely. And in fact, I was just having a conversation with someone today, saying please don’t give me a piece of paper; I don’t know what to do with it anymore! You know, so all of my communication is done electronically. A memo would only go out electronically. We don’t send mailings to houses anymore over the summer; we now send it in an electronic package. You know, during faculty meetings, we try to keep a running blog, where teachers can give in the moment feedback, and then we use that to kind of answer questions during the course of the meeting. So we’re trying to integrate technology, again, in a meaningful way, not just for the sake of doing it. Umm, so we’ve done that with a couple of our meetings to try to, you know, practice what we preach. And at the same time, it’s making our meetings more interactive, where it’s not a glorified memo; it’s here is some information. You know, if you want to anonymously ask your questions, if you want to tie your name to it, let’s poll the room and, you know, take out the kahoots and the poll everywhere, and get a sense of where we are in the room. You know, it makes sense because it’s not always necessarily the vocal minority. Now you’re getting the feedback from a lot of people who may not otherwise want to speak up. It’s just using the tools that are available to us, you know, for the greater good. (Hesitates) Am I answering the question? Researcher: Yeah, absolutely. I think that last part was perfect.
Delta: All right, good.

Researcher: Faculty meetings especially. How you make it interactive through the use of technology. Perfect.

Delta: In a room of 190 people, it’s hard to give everyone an opportunity to talk.

Researcher: Right. An avenue for voicing something.

Ok, question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Delta: I think it’s a work in progress for us. I actually would argue that we were – over the course of the last four years – I think we’ve gone from being very much behind the curve to, to where we should probably be. Umm, we have actually had people in the community come and say we weren’t doing enough with technology, we didn’t have enough resources for technology, and I would argue that there is probably some truth to that. I think we that took the feedback to heart, umm, did a needs assessment for ourselves and really started focusing on technology and again, proper integrated use of technology. That’s when we started doing our own study to see if we should be a one-to-one school. Umm, ultimately decided that we should and it’s been a methodical approach. We’ve pretty much – not known, but we’ve certainly started to believe for about two years that we were going to be one-to-one by next year. That was certainly our hope – and something that we are going to present to our board, so even using our professional development days. And we have two of them for the year, where we dedicated them to technology. And, you know, rather than just saying okay, here’s something for everyone, we would offer a menu of about 16 options, and everybody had to sign up for four. You know, so
that you’re getting different sessions on different areas of technology, also depending on where you are. So, you know, you’re talking about the Microsoft office suite, you know, who’s a beginner, who’s…who’s intermediate, who’s an expert? You know, things like a kahoot or poll everywhere or Socrative, or any of the other (forgets name of other app). You know, and each of those has then had their follow-up – be it a month later; we actually got some really good feedback from the group in October. Whereas we had done four per session; don’t do so many. Let’s do fewer so that we have more time to play with it so that we’re not just learning something and moving on. We’re learning it – I can now add to my own repertoire, create something for my class specific, with the expert in the room and then be able to get a better use of the time. And that’s what we’re going to do. Umm, that’s always smart to do for our April day. We had to do something else districtwide, but that’s what we’re going to do – next year, another day is going to be based on technology. And we’re adding one before the students come on the third day for teachers, whereas we’d only done two in the past. And we’ll do more things like that which can be hands-on. We had brought in an outside group once, and it did not go well. Umm, it’s not that they didn’t know their stuff, it’s not that they – but they don’t know our school. And I would tell you that the best PD comes from your people who are doing well inside your building. You know, when you have experts who are invested in the school, and know what the school looks like, and what our culture is, umm, you’re going to get a much better PD day. And we did. You know, we’ve had the days that are split between our own people and, you know, kind of an outsourced people. And the ones where we’re doing it ourselves go much better. Even if we’re going to consult with an outside firm, which I’m not opposed to, I think there needs to be more consultation with our own – and maybe we do some, you know, some co-teaching and some team teaching in that. I mean, that would go well.
Researcher: Yeah.

Delta: The buy-in is what’s so important. Especially when you’re using technology. There’re people who don’t need anything; it’s just give me the device and get out of my way. Umm, I think when it comes to technology, the level of need varies more than almost anything else.

Researcher: Yeah. The needs assessment you referenced earlier – was that schoolwide or districtwide – or both?

Delta: Uhh, districtwide.

Researcher: Ok.

Delta: We had started to do our own and, umm, the district kind of picked it up and ran with it.

Researcher: Ok.

Question #4 (which you touched on): Explain tangible benefits you see in the classroom from these professional development opportunities.

Delta: Uhh, I think you see people using them. Umm, you know, there is more blogging going on in the classroom, there’s, you know – I’ll say that the benefit is almost a bit of the downside too. There is no more opportunity for kids to work on their own schedules, you know, based on, you know, if they have to read something and post, they can have access to the materials as they need to have access to materials. We just have to caution people about when it’s time to put things away. You know, because you have access to something 24/7 doesn’t mean that you should use it 24/7 (laughing). You know, we’ve got to unplug and sleep, and make sure that we’re doing the self-care things as well. Umm, students now have greater access to materials at all times now. What I’d like to do is start to hone it in so that rather than you using remind 101, and you using schoology, and you using the name I’m not remembering right now, you know, what’s one system where the kids can get all of their – you know, how are we all going to use
blackboard or something like that where kids can come to more than one location. But I think, you know, I think by having computers in the classroom, we have more access to more information outside of the classroom as well. So when a question is raised, let’s pause, let’s research, and let’s find ourselves an answer. You know, I love things like blogging. Sometimes it’s just a way of doing the communications electronically, but I think that for students who are more hesitant to speaking in class, it gives them a voice. And anything we can do to give more kids a voice becomes important. And again, I think it creates the context. I think that, you know, every room is a computer lab and every room has access to research and materials and information, uhh, and something as simple as word processing. You know, I think we pooh-pooh the idea of word processing because, you know, well, we’re not going to go one-to-one for the sake of having that. But there’s some importance to that, too. When it’s time to write, it’s time to write. When it’s time to edit, it’s time to edit. If we’re going to work on something collaboratively, to be able to pull up a Google doc does have greater value than, you know, we may want to pooh-pooh it, so to speak.

There’s a practicality to having technology, you know. There’s, you know, long hand writing, and being able to edit as you go, and edit it with each other and read each other’s information. You know, if you and I write something and then the teacher wants to take it and put the examples right on the board and now we’re all learning from each other, there’s value in that.

Researcher: Yeah.

Ok, question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.
Delta: Umm, we have a manager technology and we have technicians. It is something that we are building up for next year as we go to the one-to-one. Umm, there is a tech coach in the district, but we are hiring three more currently. So we are actually going to have a manager of technology who is more of your hardware or software person, infrastructure, and then we’re hiring a supervisor of technology education and a tech coach for each of the levels. I think it’s a work in progress. I think infrastructure-wise, we’ve come a very long way. We’ve gone from having one access point for every three classrooms, to every two, to now every one. You know, I think that we need to hone our own reporting, you know, helpdesk situation a little, but we’re going to have an additional tech in this building next year as we go one-to-one, so I think it’s going to help us along the way as well. Umm, but to me, the most important thing that we’re going to see and appreciate is this – are these tech coaches, and the supervisor of educational technology. We’ve dedicated a classroom space that we’re really looking to have daily professional development for teachers based on their needs and based on what we’re going to reach out and offer as well. That’s going to be really exciting!

Researcher: Yeah it is. And those people will become experts on the culture, which you referenced earlier.

Delta: Absolutely.

Researcher: And they’ll facilitate everything.

Delta: Well, the tech coaches – they haven’t been hired, but they may very well come from some of the experts that we already have in the building.

Researcher: Ok, #6. That is exciting, by the way.

Delta: Oh, it’s so exciting! And I’m a little nervous too! That’s a lot of computers running around!
Researcher: It is. That’s a lot of moving pieces.

#6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Delta: Umm, technology is part of a strategic plan, umm, and that’s really where we came in with the study of our technology needs and how we grew into this one-to-one, what lead us to the supervisor of technology. So, we’ve kind of spent the last four years building up to this moment. Umm, I’m not sure I’m answering your question. But that’s really been our text plan. I think now it’s a matter of, you know, deployment, implementation, and assessing. So the teachers are literally getting their computers Friday next week, and the students are going to get theirs in August, and then, you know, professional development continues when we get back. And then it’s constant assessment. Time in the classroom, how’s it going, are we using them, where we’re using them, where are we not using them, how do we track the quality of use rather than just the sake of using? Umm…

Researcher: The strategic plan – obviously that’s district wide. In terms of school-based, would you say you have anything in terms of, from the initiative team, from the staff, or how did that contribute – or did it just contribute to the strategic plan, that input?

Delta: Out of the strategic plan grew a district tech committee. We initiate – we, five years ago, put in the budget proposal for a one-to-one initiative, and it didn’t go for the first several years, obviously. But it started to launch the conversation. And when that conversation became community and then districtwide, it became very important for all of us that we were having the same conversation. So I was on this district committee, one of our assistant principals was on this district committee, three of our teachers were on this district committee, and so we would really start the conversations and a lot of the exploration there. You know, our building based
one-to-one research came out of that district tech committee, so we really complemented each other well. There’s things that we wanted to do as a school that we would bring back to the district committee because it became very important for us as a district to make sure they were all on the same page rather than here’s what the high school is doing and here’s what the district is doing. And it ended up working, because what’s going to happen is we’re going to go one-to-one with the Microsoft surfaces, these carts that we’ve been buying over the past several years are going to go to the middle school, and they’re going to go one-to-one, too, with the existing pieces. And they’re going to continue to filter, which is really one of the benefits of doing this on the district level than rather simply building based. Umm, I’ll be very honest with you, I was told pretty point blank, look, we are going to start to research some things that we’ve been talking about in high school, but it is about to become an additional initiative, and be part of that conversation, which – I certainly don’t need to spearhead it. And if somebody else is going to do a lot of the legwork to get the research and bring it to us, like, you know, we had to spend a lot of time deciding are we going to go Mac are we going to go Microsoft. I was 100% Mac. 100% Mac! And my mind was changed. And it was based on somebody else’s research. I appreciate and I respect that.

Researcher: I would say that’s vertical articulation at its finest, right?

Delta: Sure. Absolutely!

Researcher: That’s a beautiful thing. Ok, #7: How do you perceive your role of committed leadership regarding technology integration?

Delta: Well I think that anything we do as a building, we have to be very clear on what our building priorities are. Umm, you know, so technology has been part of our ongoing conversation, so we’ve got to make sure that when we are doing PD, that we’ve got, you know,
varied levels of PD, that we’ve got the follow-up for the PD as we were talking about earlier, that we’ve got to be very careful about anything that’s a flash in the pan. And that’s just the way that our school culture works. Umm, you know, when I became the principal, I was very aware of the conversation of the flavor of the day. And we’ll talk about this until we’re not talking about it anymore, and then we’ll talk about the next thing. So, we really have to be very cognizant of the staying power. And I’m kind of lucky having been an internal person – I taught in this building, and now to be the principal, you know, I understood that as our context. So we really try to make sure that, you know, ok, we’re going to focus on the three things. We’re going to focus on collaborative problem-solving this year, you know, technology and questioning in the classroom. So really anything that we do for the rest of the year - or really on like a three-year cycle, somehow reverts back to one of those three goals. Uhh, I think if we have too many goals, we’re not focusing on any of them. And if we are only focusing on the technology, then doesn’t that come at the expense of all the other good classroom instruction? Technology is a tool; it’s not the tool! And I think that that’s where you get your pushback. If you try to oversell the technology, like this is the answer, and it almost becomes teacher proof teaching, which I don’t think any of us believe in.

Researcher: Ok, #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?

Delta: Uhh, I think I told you everything. Umm, we’ve done our homework. Again, four years ago, I think we would tell you that it’s something we were pretty far behind on, and we spent at least the last four years trying to make ourselves smart. We went and we saw a lot of schools in the state, in neighboring states that had what were deemed to be successful technology programs. Not all of them are one-to-one; some of them were BYOD (Bring your own device) and some of
them were just, you know, where teachers had computers, kids were using their phones, and that sort of thing. So we really tried to give ourselves a process to create our own plan. That was really valuable. We have to do a good job – umm, I started a principal’s group in the area a couple of years ago because we just learn better from each other. So to see what successful schools are doing – let’s learn from that and not invent the wheel if somebody else already invented it. You take it, you tweak it, you make it your own; everything has to be site-specific.

We are not another school, and another school isn’t ours. Umm, there are some areas where other schools come and want to learn from us, and we have to recognize that there are other areas where we’ve got to go learn from other schools that are doing some really good things.

Researcher: Sharing is caring, right?
Delta: Sharing is caring!

Researcher: Ok, final question, #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?
Delta: Real world context.

Researcher: That was quick!
Delta: I knew I was going to use the word context. But I figured I had two more words – I might as well try to use them (laughing).

Researcher: (Laughing) Ok, thank you, Delta. That concludes our interview.
Delta: My pleasure.
Interview with Echo

Researcher: It is May 20, 2016. We are here with Echo. Thank you for agreeing to participate.

Echo: No problem.

Researcher: Question #1: How do you perceive your role as technology leader of the school?

Echo: I think as the technology leader of the school, I have to be open minded, and I need to understand that everybody has different abilities when it comes to technology, and you really have to be cognizant of those different abilities, and you need to differentiate your approach to the individuals at hand. I think that I have to be a role model and practice what it is that I’m asking the teachers to do. So for example, with this one-to-one initiative, we’ve been working with Google classroom, moving towards Microsoft classroom, so I’ve been sending information to my staff, and try to do it through Google Drive, and letting them know that I believe in what I’m asking them to do.

Researcher: Question #2: How does your use of technology – which you just referenced – how does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Echo: Well, I think my background really lends itself to demonstrating my use of technology. Before I became the principal, I was a business education teacher for a number of years, and I was the K-12 business and technology supervisor in the district, so I brought keyboarding to the second grade and promoted use of technology in the elementary world. So I’ve always performed like that. It’s not just a one-to-one initiative, so to me, it’s innate. I wouldn’t think of doing things any other way, but when I became the principal of this building five years ago, teachers were very happy for the way I organized information electronically, always having a record of everything; even collecting lesson plans and distributing information. And I think
because that was my approach, they realized how technology can really streamline things to make learning more meaningful, whether it be for them or for their students.

Researcher: Touches on all the different stakeholders – nice.

Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Echo: That’s a good question. There’s a different approach. Umm, it’s changed over the years. My belief in professional development is it has to be ongoing; it can’t just be a one-time person coming in and doing something and moving onto the next topic. I try to make all of my building meetings, umm, interactive with my staff members. Anything I can tell them in just a memo, I will do that. So when they’re with me for meeting times, I make it PD. I have PLCs for different things going on with technology. Different departments are working on different technological things, based on their needs. For example, for math, they have a new textbook, so I’ve given them PD with the publisher and how to use the online part of the textbook with the other applications we have here. For social studies, I’ve been encouraging them to use Penpal schools so that they could work with the various cultures and make learning more real for the students. In science, we’ve been using technology to promote the next GEN standards with applications and lab experiences. And in ELA, we’ve been using leveled articles through news ELA so we can differentiate instruction. So during department meetings and building meetings, we try to model these things. Districtwide PD we did this year was a focus on differentiated learning and working with diverse learners. So there were 40 different workshops that were offered, and teachers got to choose two of them. And we’re going to be cycling that through
again in September to allow teachers to take more. So, PD, in my opinion, is always ongoing. It’s not just happening on the two PD days we have here; it’s happening in meetings and just whenever we have a chance to go in and give them what they need.

Researcher: As it should, right?
Echo: (laughing)

Researcher: Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.
Echo: The tangible benefits that I see is our classrooms have become more student centered. Teachers are using less standup and deliver talking at children, and they’re really being the guides on the sides and the facilitators of learning, and differentiating has happened naturally as a result of the technology and the learning activities that are affiliated with it.

Researcher: Question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.
Echo: Ok, in our department in our school, we have a district technology manager, and he has an administrative assistant, and she runs the helpdesk. And we have an IT architect. We have somebody else that works with the database to do all the things with NJ achieve. We have about five, umm, technicians. When we were going one-to-one, we had to do a whole survey and check whether our technology – whether are infrastructure was ready to work. We had some real problems with it. So we worked with Microsoft and our technicians to get everything ironed out – what we had to do. So we really put a lot of money into our infrastructure to make sure that it worked. And before we chose our devices, which are the surfaces, we ran some pilots at the high school and middle school to make sure the work that we did on the infrastructure was
enough to handle the one-to-one initiative. There were some glitches, so Microsoft came in and helped us out, and now we’re up to speed. I think we really need to improve the communication of maintenance repair. Very often we put things into helpdesk, and the technicians don’t always get back to the teachers about when things are fixed, and what was wrong, and how it can be prevented in the future, so I think we need to tighten up communication in that area.

Researcher: A common theme in districts.

Echo: I’m sure!

Researcher: Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Echo: This year I was on the technology committee, and we did create a technology plan last year, so we are in our second phase of that, and we were able to acquire a lot of new equipment. The one-to-one initiative came out as a result of this. And I think we really need to just keep looking, once the 7 to 12 initiative goes into effect next year, we need to start developing a plan for when it’s going to trickle down, because we need to prepare students for what they’re going to have in grades 7 to 12. So for example, something I’m doing next year in this building, I’m changing the curriculum this summer of our business education course, integrated business applications to, to be less focused on, umm, applications like word and PowerPoint and things like that, and have them do more with coding, more with working with Google classroom and using something like one drive, and one note, to help them with organization and to get them ready for what they’re going to have in grades 7 through 12. To help them more with organizational tools, working more with skill rather than product.
Researcher: Do your staff members enjoy that line, too? That’s catchy. I mean, that’s what it’s all about – skill rather than product.

Echo: Umm, they, I think I use that very often if I’m having a conversation with someone about a class lesson and if it was a little more product driven rather than skill driven I use that as a point to understand how it may need to be more focus on the student and development rather than activity. So sometimes they like it, umm, if they’re doing it. If they’re not doing it, they don’t like hearing it, because it’s making them change. They have to have a paradigm shift in what’s happening.

Researcher: Change is hard; status quo is easy.

Question #7: How do you perceive your role of committed leadership regarding technology integration?

Echo: I feel that I really need to be a change agent for my school, and that’s just not my teachers; it’s for my students, it’s for my parents. Everybody needs to see the purpose of why something is happening. So it’s my role to educate everyone about the benefits of using technology in the classroom. But I really need to make sure that it’s technology that’s purposeful, not technology just for technology sake. You could have a beautiful brand-new surface 4 and use it as a toy. How are you using it in your classroom to enhance learning? And always keeping current, sharing articles with my parents, and my students, and my staff as to the benefits of what the 21st-century needs because we’re preparing them for things that we don’t even know exists right now. So it always has to be - bring it all together for everybody and bringing everybody back – like in teaching, bringing then back to the objective. Why are we doing this?

Researcher: Question #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?
Echo: I think the more they get, the more they want. We’ve been very successful, especially here in the middle school. When I came here five years ago, only two or three teachers had Smartboards. Now, everybody has a Smartboard, and when teachers see how technology is letting them go deeper into the curriculum, and they’re no longer looking at it as this is just something else we have to do. They’re now looking at technology as a tool to get done what they need to get done to support their students and their curriculum.

Researcher: Question #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?

Echo: Acceptance and encouragement.

Researcher: Ok. That concludes our interview. Thank you, Echo, for participating.

Echo: You’re welcome!
Interview with Foxtrot

Researcher: We are here with Foxtrot on May 23, 2016. Thank you for agreeing to this interview.

Foxtrot: Certainly.

Researcher: Question #1: How you perceive your role as technology leader of the school?

Foxtrot: Uhh, I perceive my role very simply as the point person for all things technology. Naturally, as is the case with most districts, we have a technology coordinator for the district. But all things related to technology run through me with our IT person, as well as other administrators in the district. So, you know, really, I see it as being incumbent upon me to help steer the ship when it comes to our technology initiatives, but to work through all of our stakeholders to help us with that. Whether it’s committees, administration, teachers, professional learning communities - things of that nature.

Researcher: Question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Foxtrot: Really, my use of technology, umm, and its impact on teachers is very global. Umm, technology is a medium of communication, obviously. It’s what drives most, if not all, of our curricular initiatives from our student information system to the way that we communicate with both teachers and parents - whether it’s Twitter or Facebook. Umm, all of our textbooks now have online components. We’ve just, this year, explored, and are now implementing for next year, a blending learning model for enrichment. We’re using APEX as a vendor for a blending learning model to provide enrichment to our seventh and eighth grade students, specifically in math. Umm, so you know, I think that the impact, ultimately on teachers, is profound.
Researcher: Ok, question #3: How do you perceive your school in providing professional
development opportunities for staff members? For example, how many are there per year, who
leads them (outsourced or staff in district), are they hands-on or informational sessions, and is
there follow-up PD available?
Foxtrot: Umm, as far as professional development goes, we probably – we have faculty meetings
built into every Monday of the school year. So, I mean, if you’re just to aggregate that out,
basically four a month, and it’s one hour. What we always try to do is two of those four are
geared towards some sort of professional development for staff with whatever technological
application it maybe, like for example, I mentioned the blended learning. So we’re going that
direction. We’re going to be transitioning to be a Google school - Google apps for education –
so let’s say two times a month for doing that. We have brought in people from the outside from
Apex from Google – it’s not specifically Google, but they’re outsourced to whomever else. And
we’ve done that probably every other month, we’ll bring in someone from the outside. And then
ultimately, we follow-up at team meetings and at our built-in PD time that we have, independent
of faculty meetings for grade level meetings and whatnot. That’s where we follow up with the
staff for what they have been trained on and that probably happens once a month. It’s very
hands-on. I guess you call this informational, but then we allow the teachers time to play with
the applications especially as we’re migrating over to Google.
Researcher: Best way for them to learn, right?
Foxtrot: Exactly!
Researcher: Question #4: Explain tangible benefits you see in the classroom from these
professional development opportunities.
Foxtrot: I think that the tangible benefits are the application in the classroom for instructional purposes. Our previous superintendent here had conducted an - just sort of an informal study on student test scores tied to how teachers were using the technology that was available to them. When I say technology, I mean programs that were available to them, whether that was measuring up live, study island, you know, those sorts of things. But more specifically, now what we’ve done is we’ve seen in the students an excitement level that is remarkable and we’ve done things – we’ve created a STEAM lab here this year and where using, umm, this Sphero SPRK with them so there’s programming applications, uhh, there are everything from design to programming to then playing around with the technology. So, I think realistically, tangible benefits that we’re seeing in the classroom professionally, not only from the teacher perspective, but also from the student perspective has been great, umm, large – whatever you want to call it (laughing). Profound. But we’ve seen it really take on its own life because the kids are excited about it and it’s transferable to other disciplines, so there’s really much more of a coordinated effort into building, and I do think we have some advantages that are built in, too, because were a pre-K to 8 building. So it lends itself to a different sort of articulation.

Researcher: Yeah, thanks for mentioning both of the communities that benefit - the teachers and students. That’s an important component.

Yeah. Sure.

Researcher: Question #5: Evaluate how your school addresses maintenance activities and technical support in effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Foxtrot: Ok. So who’s involved is, very specifically in this district the superintendent/principal, the assistant principal, the IT coordinator, the teaching staff and the business administrator. And,
typically what happens here is I would have a teacher go to the IT coordinator with the question about, you know, let me just use Google apps as an example. If they would like to purchase apps, they first send the IT coordinator an e-mail, who sends me an e-mail and copies the teacher on it, and then I ensure that we have enough money in that line item of the budget with the business administrator to sustain those apps and those programs. That’s just one example. But for any other maintenance sorts of things, it really goes through, umm, the IT coordinator to me. And then I’ll just break out the budget book, talk to the business administrator – do we have enough money – what’s the big thing right now? Making sure that you have enough, umm, bandwidth. You know, do we have enough bandwidth to support everything with PARCC? And fortunately, in this building, it’s a more affluent community – we have an unbelievable – and you talk about maintenance – we have an unbelievable education foundation that supports all things technology here. They want to see innovative classrooms. And so our ed foundation will just say what you want to spend money on and I know that there were, uhh, probably seven or eight years ago when Smartboards were really starting to go into classrooms. We had somebody write a $25,000 check and said I would love to see as many classrooms as possible outfitted with Smartboards. So, that helps.

Researcher: Nice.

Foxtrot: But the overall – the general maintenance usually comes from our IT coordinator and then to me.

Researcher: For a maintenance issue, would a teacher follow the same avenue; e-mail the IT person and then…he or she would CC you?

Foxtrot: Yeah. It’s pretty prescriptive. We’re a small school, but I like to make sure – we don’t have, like a program. I know that some schools have like a school dude. We don’t’ have that.
So it’s prescriptive in the sense that, ok, get in touch with the IT guy; it’s one person. It’s a one person department. And then he’ll pop over here and say hey I got this e-mail from a teacher; you saw it. Here’s what we can do and here’s what we can’t. And then we go from there.

Researcher: Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Foxtrot: Yes, we have a three-year technology plan that we update annually. And so then that technology plan becomes really a fluid, living document because we are updating it every three years. And that’s just something that I was pleased to know that the district had adopted as par for here, and something that I certainly want to continue. We have a Board of Ed technology committee even utilized to help us to that effect so that we involve the board of ed, but ultimately it boils down to the recommendations that I make to the board to sustain the technology that we have through the technology plan. Umm, so we’ll continue to do that. One of the things that – I don’t know if this answers your question, but maybe this is an addendum to it; this was not a STEM school until this year. We’ve really focused on STEAM as an initiative. One of the things that we’re trying to do, because we’re small in size, we have limited resources, we have limited space, we’re a one school district; we’ve made our media center not just your traditional library, which it always was; we’re turning that into a STEAM lab. And that’s going to be the larger part of the plan, for the next three years, is how we continue to integrate STEAM. It’s one of our district goals that we have that we speak about regularly at our board meetings as well.

Researcher: Ok, going back to one thing you said that the three-year tech plan is updated annually; when did that start to happen?

Foxtrot: Now. Like I wanted that updated annually.
Researcher: Yeah. I’ve never heard of that before, and that’s something that, of course, seems very logical.

Foxtrot: Yeah, I just, you know, I think that what are you going to do? You’re going to have a three-year plan, and then towards the end of the third year, you’ll be like ugh, it’s time to update this thing! So I want to know, based on this year, what have we accomplished and what do we need to continue to work towards so that next year we can update the plan and report out more genuinely on what the plan really is, so I don’t see it as so prescriptive; I see it as a living document just like a teacher lesson plan that can be modified and adjusted each year.

Researcher: Which is the essence of future technology acquisition. It has to be a fluid living document to most effectively meet that.

Foxtrot: Right. Exactly!

Researcher: Ok. Question #7: How do you perceive your role of committed leadership regarding technology integration?

Foxtrot: Umm, first and foremost, it is absolutely of paramount importance that as the leader of the district, I remain committed to demonstrating to the staff and to the students that we want to be (you hear it all the time) on the cutting edge of technology. But that we want to be up-to-date and current with the best possible technological applications and methods to help kids learn. When I was in school, it was all direct instruction – not all of it, but it was mostly direct instruction. Today, everything is available to students at the push of a button, so we need to tap into that because that is how kids learn today. And this is what we talk about when we say 21st-century learning skills and the global market and college and career readiness. So, I personally am one hundred percent committed towards moving year to year towards that continued acquisition, which is why I want the technology plan to be something that’s fluid and updated.
Umm, from there, I think that now, as committed as you say that you are, now there’s a resource part of it. So what do your resources allow? So what I’ve asked our BA to do is – I’ve sat down with our business administrator – and said I want to see how much money we have devoted towards technology upgrades in the building, programming for students, professional development for staff and what I’ve asked him to do is look at line items and move money away from areas where we have not really been using funds, it’s been reallocated somewhere else, and put it into that area.

Researcher: Ok. Question #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?

Foxtrot: What do you kind of mean by that?

Researcher: Well, it’s pretty open ended. Anything you feel like you haven’t touched on, anything you’d like to go back to, or anything you think these questions don’t address - just regarding technology integration. Or the process of it.

Foxtrot: Umm, maybe a continued focus on the PD part. I think that a lot of schools – a lot of school districts, and then a lot of schools - in a larger setting, might be micromanaged by larger office, to say ok, we want you to integrate technology into the classroom, but they’re not really sure what that means. They may not really have their own hands-on experience with it, so I think you kind of have to make sure you’re in the roots of the tree, and anyone understands it when you talk about technology integration, you can define it, and it’s something that’s tangible to those that are in leadership positions, so that they understand what it is. Umm, and that comes from, very simply, quality articulation, dialoguing appropriately with your administrators, and your staff, and your administrative council meetings, and asking people who are in the roots of the tree what they want. What do you want in the way of technology in your road and how are
you using it?  So, as I said, I kind of think that in this district, I have more of an edge because
I’m a superintendent and the principal, and it’s a one school house district.  But, even still,
whether it’s in the building like this or in a larger building, I know that there are people they’re
very – they talk about it, but then they’re very hands-off.  They don’t really know what it means,
ultimately.  And again, appreciate the fact that there is a whole infrastructure issue when you
talk about integrating technology.  I once had a superintendent who said, jeez, the teacher
integrated technology; check on the observation because he took out a laptop.  And I was like,
that’s not, just because he took out a laptop or he used the Smartboard, that’s not what it’s all
about.  Umm, so there has to be a piece where you’re committed to it and actually understanding
what the infrastructure requires to get you to the point of full technological integration in the
classroom.  And then - what that is; what are you using, what are the programs that you had
available, are you getting away from hard cover textbooks, are you going to a completely online
version?  Umm, how are you communicating with students independent of the classroom?  Does
every kid have a Google account?  You know, so I don’t know.  There’s – I think there’s a whole
host of things there.
Researcher: That’s the open-ended part of it.  It’s wherever you wanted to take!
Foxtrot: Yeah.
Researcher: And question # nine; one of the hardest ones on here: Using one, two, or three
words, how can you describe the essence of technology integration in your school?
Foxtrot: In one word?  We see it as essential.  Another word is commitment.  You have to be
committed to it.  And then the third part – I’ll use all three, is education.  And that is very holistic
in nature.  You know, educating the staff and the students and how to properly use and integrate
technology in classroom.
Researcher: Ok. Excellent! That concludes our interview with Foxtrot. Thank you very much!

Foxtrot: Thank you!
Interview with Golf

Researcher: Ok, it’s May 23rd, 2016, and we are here with Golf. Thank you for agreeing to participate in this interview.

Golf: No problem.

Researcher: Question #1: How do you perceive your role as technology leader of the school?
Golf: I think my role is to model technology use as frequently and as efficiently as possible. I have some veteran staff that aren’t as comfortable with technology use, so it’s important for them to see me using it - the benefits of using it. Demonstrating it in their classroom and allowing myself to make mistakes with technology so that they understand that they can make mistakes as well. I also believe that technology is a great tool. I don’t think it’s the most important thing, though, and I don’t think it’s the only instructional strategy that helps children learn. So I think it’s also important to value the other instructional strategies used.

Researcher: Question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.
Golf: I have a wealth of STEM knowledge that I think gets my staff, in particular, excited to do different types of projects within the elementary world. I think that’s the direction that the country is going in, and I think elementary school teachers aren’t as comfortable with STEM – how to incorporate it into their classroom, how to use technology in innovative ways to excite the learner. So, my role is to educate them by either demoing lessons for them, demonstrating in staff meetings what they can use, but also having that balance. So right now, we have a group of students in the garden building a bat house. That’s something that they’re interested in doing. They wrote a petition to me as to why they wanted to do it, and then we funded the project, and that’s something that is exciting to them. And it’s not about computers; it’s just about STEM,
and that can be something that’s technology related and not necessarily technology-related. So it’s having that balance.

Researcher: Kind of all encompassing…

Golf: Mmhmm.

Researcher: Nice.

Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced for staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Golf: This district’s had a lot of changes in the past year. Because of that, I think our PD program is developing into something that’s going to be extremely efficient. Right now I think that the most impactful professional development that we had so far was the un-conference where staff were able to choose what they wanted to attend districtwide. It gave staff members a lot of ownership over their learning, and it also gave the principals and supervisors an opportunity to demonstrate things that we were interested in, so I did mindfulness. It was just something fun that they can also turnkey into their classroom immediately, so I think that was the most important thing. For technology, specifically, we’re doing the one-to-one initiative, so this afternoon from 3:00 to 5:00, there’s a technology staff meeting. It’s going to be taught by our tech IT person in the building. I think that my staff - I got the device early on purpose. I petitioned for it – the new device that we have which is the surface pro, because I wanted my staff to come to me with questions because I think people are much more willing to ask questions and play with devices if they see that I’m playing with it and oh, here it is, here’s how you turn it on. It’s on and it’s giving them voice and validating their concerns because they’re scared about,
how do I even turn this on, how do I get to the internet, how do I access something. We’re moving from Google Classroom to One Drive. What’s the difference between the two of them? You know, am I going to lose everything in my drive, how do I move things out there? It’s just easing fears in explaining that we’re not doing anything overnight and it’s going to be a process. So I think the communication piece is huge.

Researcher: You mentioned the IT person from 3:00 to 5:00 is going to be teaching. Is that an IT individual or an educator?

Golf: IT individual. Which I think could in some instances be really successful, and others, it might be really anxiety producing and/or frustrating.

Researcher: Right, I’m curious to see how that goes. It’s very interesting.

Golf: It’s very interesting. I know that some of the schools receive Microsoft trainers, and if I had to guess, the rationale was probably principals that weren’t as comfortable with the device got the Microsoft people and principals that were a little more comfortable didn’t. I don’t think personally we need it. I’ve got a great staff that is willing to learn; they’re excited about the new device and excited about what it can do.

Researcher: How many staff do you have?

Golf: We have 63 but really 45 classroom teachers. Like staff members. If I had to guess, I would tell you the majority of all of them would be there today eager to learn.

Researcher: Wow, and that’s not by contract?

Golf: It’s interesting. We have a very strong union here. They will be here from 3:00 to 4:00 with the option of if you had to leave for something, you can see your building principal for the 4:00 to 5:00 piece. What I think is going to happen - I’d be very surprised if the IT person talked from 3:00 to 5:00, so I think they’ll wind up getting out early anyway.
Researcher: Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.

Golf: I have myself seen results just from having any devices because although this is a highly successful school district, I would say technology-wise, we’re a little bit behind. So we’ve had a lot of just maintenance issues, and infrastructure issues, and wireless issues, and devices not working properly extremely, old Dells where you can’t do the types of things you want to do. We have Smartboards but not the most updated Smartboard software. That’s frustrating when you go to teach a veteran staff member how to use it, and then it doesn’t work for software. It’s a joke. We have had tech come in a few times; they’ve been really good (TEQ). They’re a major provider for technology equipment as well as PD, however when they’re here and the software in the tech lab is so outdated that they can’t even demonstrate what they’re trying do, it’s a waste of everyone’s time, and it’s frustrating. And I’m losing a day in the classroom for that. So you just have to make sure that all those components are thought of, and I think we’re getting there. And I think for next year, we’ll be there, and that’s a good thing.

Researcher: And it probably almost reaffirms the veterans’ belief that technology is no good?

Golf: Yes. Mmhh. Very much so, and that’s what I’ve seen; an ever renewed sense of joy around technology because wait, now we have the devices that are going to work and they are going to pair properly, and I think they’re excited about that.

Researcher: Question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Golf: We have one IT person assigned to this complex, and now the middle school has many more devices than we do, so the bulk of his time is really allocated to addressing those issues.
And I understand. With that being said, we will put in a helpdesk request; we’re often told things can’t be fixed; it becomes a very frustrating process. So what ultimately happens, I would say, every three months I make a list of all the issues in the building. I’ll email it to the head of the IT department, and CC my IT person, and CC the superintendent, just because it gets to the point where it needs to be addressed because it’s really impacting class instruction.

Researcher: Okay so that’s maybe long-term issues?

Golf: Yes.

Researcher: For short term or maybe urgent matters, that would go directly to the one IT individual?

Golf: Correct.

Researcher: Ok, and basically hope that he or she comes soon, basically?

Golf: Yes. And that’s where I think it’s more difficult in a larger district with a lot more devices and a lot more things wrong and a lot – I don’t want to say less accountability – it’s not that, but your visibility is less, so it’s difficult to always find people who are trying to fix things. I was a K-8 (school) before; it’s a much more manageable situation because you know all the players, and you know where everyone is at all times. And in a bigger, it’s just different - not necessarily better or worse, but it’s different.

Researcher: Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Golf: The most important thing to me is to go to my teacher leaders that are really interested in specific things, ask them what they want, and plan accordingly. My PTA is open to buying the things that we want to buy, but it’s finding out from my staff first. I don’t want to be the type of
leader that buys something that people aren’t going to use. So I think it’s finding interest first, and planning for the finances of that, and that can be done a variety of different ways, and bringing it into the school and making sure that it is used appropriately and frequently where you really feel the bang for the buck and that it’s worth it.

Researcher: So you feel like there is autonomy school-based?

Golf: Yes. Even in a larger district, yes. And part of that is encouraging staff to have the voice to say you know my students are struggling in math, ISL is a great program, and then opening it up to staff - is ISL something that all of you are interested in or some of you are interested in, and then purchasing it. But I think it’s a real mistake to just purchase without getting that stakeholder input first.

Researcher: Question #7: How do you perceive your role of committed leadership regarding technology integration?

Golf: I think it’s balancing all three appropriately, and I think lots of leadership is strictly balance. And I think that’s explained to staff that this is a process, it’s a long-term process, and it involves many different components, and then balancing those three components. But again, you need their voice in that. So I started the year with a staff survey that asked not just are you comfortable with technology, but what technology are you comfortable with, what do you not comfortable with, what’s something you want to learn more about, or what’s an area in your classroom that you feel technology would benefit you – reading, writing, math, behavioral management; you know, there’s a million different things, and then going in a direction from there with all of the stakeholder input. It’s - clear patterns emerge (grades) K-2 and (grades) 3-5, so it’s easy, then, to build a program around that. And just giving people the ability to tell me what else do you want to tell me, and they’ll tell you. And making it anonymous. And then the
IT thing is huge for them. If they feel like problems aren’t being addressed in a timely manner, or won’t be addressed in a timely matter, they stop coming to you, and then you don’t know that their Smartboard’s been broken for two months. So it’s important to gather the information and then say I’m going to get this addressed by next Friday, and get it addressed even if that means, as a first year principal, harassing people, it is what it is. Like, we’re doing this for the benefit of the students, so I’m not trying to give you a hard time. I’m just trying to get this done.

Researcher: Would you say technology-wise, that’s your number one concern?
Golf: Mmhh, for sure. With the new devices, it will be better. But with the older devices, it was, I mean…

Researcher: Yeah. We had XP’s in a lot of the classrooms even within two years ago.
Golf: Right. And even with the Chromebooks, which are great, they are still cheap devices, so they break all the time. And then they’re not fixed. You know, we were gearing up for PARCC, and when I did a teacher inventory of the devices in the room, I would say 85 out of the 180 we’re not properly functioning. And I was like, were you guys going to give me a heads up before PARCC? Like, we can’t – that’s not going to work.

Researcher: And they break many different ways, too.
Golf: Uuhh. right. Track pad, keyboard, I mean, just a million different things. So it’s constant maintenance on all of those things, and that’s where I think…rolling them out every three years and returning them.

Researcher: Question #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?
Golf: I would say the only thing looking back on this year that I wish we could’ve changed is that I think sometimes schools or districts get really caught up in the planning and the voting and
the purchasing of equipment, and sometimes it’s just good to just make a decision, buy it and get it going. Because they distributed these, I don’t know, let’s say last Monday, and I think they had this concern that it was going to be so stressful for all – and all the staff were so happy, and I think sometimes we underestimate our staff’s potential, so I think it’s just understanding that we’re in a really quickly changing world, especially in regards to technology and moving a little bit faster. And I understand the school district’s need to budget properly and vote properly, but the other thing is we need to keep up and move little bit faster.

Researcher: Question #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?

Golf: I would just say balance. I think balance is the most important thing.

Researcher: Ok. That concludes our interview with Golf. Thank you very much.

Golf: Thank you.
**Interview with Hotel**

Researcher: We are here with Hotel on May 24, 2016. Thank you for agreeing to participate.

Question # 1: How do you perceive your role as technology leader of the school?

Hotel: So I find it to be a difficult role, but an important role. Difficult in that, you know, that technology is advancing day to day, and we want to stay on the cutting edge of introducing and implementing technology to students. And so that requires that I am very knowledgeable, not only about the technology, but how to use it. We do have technology staff at the school, and they are key in going to trainings and attending professional development for staff, but for the building leader, I think if you are not also using and participating in the technology, you are going to be at a deficit on spearheading the newer ideas in how it can connect to curriculum.

Researcher: Question #2: What you just touched on - how does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Hotel: So we have staff members that are a variety of different ages and experience, and I think that when the school leader models the use of the technology, it sets the expectation that all parts of the school should be utilizing that technology. If you are just suggesting to staff that they need to have something in their hands, and let’s say use it for attendance or instruction in the classroom, but you are not using it or you don’t seem to be connected to it, there is less buy-in from the rest of the staff to actually partake in the process.

Researcher: Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in-district), are they hands-on or informational sessions, and is there follow-up PD available?
Hotel: The way I look at is professional development related to technology is critical. It is never informational; it is always hands-on, because there is nothing that is learned in an informational session with technology, because the minute you sit down in front of the machine, you have a question. So I also view that professional development is ongoing. In the past, there have been fewer professional developments for technology - and I’ll say that maybe, let’s say six years ago, you would not have had as much professional development at that time, you know, getting up and running on your e-mail and getting used to informational searches. But now I’m putting Chromebooks in the hands of every kid accessing technology through this, and also incorporating the use of cell phones. You know, we need staff to be engrossed in each of the different nuances, because it used to be the technology teacher was the guru for all technology in the building, but every teacher has to be a technology teacher in this day and age. They really have to understand not only how to hand out a machine, but how to operate the machine and what’s with the virtual experiences we are using. A lot of, you know, the second leg of technology integration and professional development in schools was understanding how to turn the device on and off. Now you have to - that’s the no-brainer. Now you have to do that in any classroom, knowing what a Google classroom is, having to access all the virtual tools websites beyond just the simple search, etc. It is critical, so we are providing an ongoing training throughout the year, because we are fortunate enough we have three people for technology here at the school for students. One of those individuals is coordinator for the building, so as a tech coordinator, half of their schedule is freed up to circulate around the building to support staff throughout the day.

Researcher: Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.
Hotel: So the benefits are that teachers are actually working with students on technology in effective and meaningful ways. What I mean by that is that we are not just giving kids devices so that they are quiet in front of the screen while the teacher sits back and grades papers. We have had experiences where students are doing an assignment on Google classroom. So they are all logging onto a specific site that the teacher set up, they receive the assignment in a virtual way from the teacher, and they can both collaborate on a common assignment or work individually, and then in real time the teacher can be sitting at a base computer and see the students work in progress and provide on the spot feedback without having to get up or interrupt the class. So you could be working on an essay, and as you’re typing that essay, you’ll see information pop on your screen from your teacher in the middle of your writing giving you feedback for you to edit your work. That type of system was not available until technology, because the teacher would have to actually stand over your shoulder and read your essay, and that might be cumbersome to have someone over your shoulder. Also, when the teacher is talking to the student about their work over their shoulder, he may be distracting some of the other students, so the individualized targeted instruction and student conferencing that is possible is definitely very valuable. And I just want to elaborate on that more. That is like a language arts type example, but another tangible benefit from the professional development is the teachers’ confidence. Without the professional development, we are sending teachers into use things that are like, you know, asking someone to drive a car without ever having had practice doing it. We are giving them the comfort to do that in the classroom so that when students have questions, teachers have confidence to answer. They talk about the digital divide, so we are definitely a generation of adults that are learning technology. When we encounter kids, they are living with technology, and so they walk into the classroom many times knowing more than we
know about it. And so it prevents kids from thinking they can trump the teacher’s instruction because they know more. It’s better that the teachers are armed with the information prior to the lesson beginning because then the kids don’t feel like they have a leg up and this is not important - they feel like there is still something to be learned from the instructor.

Researcher: Thanks for adding that; that’s a good touch.

Researcher: Question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Hotel: In our school, we have this technology coordinator. All teachers have access to technology, and I would say that every teacher has a classroom set of Chromebooks available to them to use at any given point. We have three tech labs in the building; we have an iPad cart, so there is a ton of technology floating around. With that being said, all of it needs maintenance and updating. Our technology coordinator is sort of the lead person to assess and manage all of the machines, so he is in charge of knowing what software each machine is running, which machines are perfectly up and running, which machines need support. That’s at the school level. We operate through something called a Zen ticket if there is an issue that exceeds what the building is able to maintain. The Zen ticket links to the technology supervisor at the district level who then coordinates the maintenance at the district level. We have a few IT individuals who can float into the buildings and handle some of the in-house support that can happen. I supervise a lot of what goes with the maintenance of the machines. I am usually the person that is supervising the priority. We could receive a group of concerns related to either software updates on machines that are currently running, where the software update isn’t a priority, and then we
have a machine that went down that is critical to operating such as a three dimensional printer. We would prioritize which one would get worked on first in terms of money.

So I’ll talk about money loosely with maintenance. I also have to consider the budget; it’s very difficult at this time to manage technology in the building because it would assume that we have planned for this explosion of new machines coming into the building. We have a very shoestring tight budget, minimal budget that satisfies what we can do in-house. The district has tried to assist with that the last couple of years by taking some of our purchasing out of our hands, so we made stronger contracts with printing companies so that we’re not in-house dealing with paying for ink and toner, which alleviates some money to buy other items. So when we start doing PARCC, we obviously had a large price tag for schools to bring in Chromebooks and the other supporting equipment like headphones and mice. The district handled a large part of that purchasing to help us still maintain what we could do in terms of buying the other things such as wires and different programs for computers that we would want in-house and not burn our entire budget on just new costs. That would come in what we see moving forward that in order to support what we have in a very realistic way, we need to reconfigure how we budget money, because technology is expensive.

Researcher: Which will be a perfect segue to the next one, so that is actually perfect. One question, though, before we move on. The technology coordinator - based on the way you’re talking, is this individual an educator and knowledgeable in IT I am assuming?

Hotel: Correct. Your technology teachers can range anywhere from somebody that used to teach shop and then when they got rid of the industrial arts program, they had no idea what to do with that person, so they became the technology person. Or it was a librarian who then became a new fancy term the media specialist, and then media specialist kind of knew computers, and that
person became the building’s technology person, or you had a certified teacher in whatever the discipline is in an elementary school. Could be math, science, social studies, who happened to know technology, and when the technology spot opens up in school, they shifted somebody who is knowledgeable into those roles to something that we have. And that’s why we have people who are certified in middle school education in some shape or form, but have a background or major in technology in someway, we are trying to filter positions to these individuals so that when we hire now, I think we have just gotten over that cusp where some of these older people that I mentioned in these former rolls when they first came are now retiring. Schools are now in the capacity to hire people, and when we go into hire technology - you know coordinators or instructors - we are looking for someone who has a background in it. We push teachers who we think are capable to get certified in areas like to be a Google instructor or to go back and get a masters in technology or tech communications, because that becomes more valuable for us to have than to have somebody that kind of knows we want someone who has the sophistication who can go under or inside of a machine and know what they are doing.

Researcher: Invaluable.

Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Hotel: So we currently don’t have a technology plan at the school. The district has a technology plan that each of the schools sort of adopt. We are going kind of based on their projections. Moving forward, I know that the district just really reorganized their budget to allow for a more infrastructure support budget so that we can keep maintaining our machines in the building in terms of how our planning and activities are looking. We are going to actually hone our
academic course offerings in STEAM model, and so in doing that, we have now brought on a lot of tech requirements to these new courses that we are going to be offering, and we started to bring in new technology. So we have brought on three-dimensional printers, and we have also brought in more Chromebooks that can support software to work with kids on three-dimensional printing. When we talk about technology, we are usually talking about computers, but we have arts technology. We also have kids that run our soundboards and our lighting. We also have music classes that are using software to create sound tracks from movies, so we have a music production class, and we are also looking at more advanced use of technology in our STEAM and academic electives to give kids experiences they would not typically have. If you take another sound example, we are looking at science sound and technology, and looking at how to create a device that would allow for students to see a visual of what sound looks like so when you hit an A sharp sand, moving in an A sharp pattern creates a certain image. So kids looking at technology in different uses, we just spent, I would say - in fund raising PTA support and district monies, we just spent about another $30,000/$35,000 to upgrade our electives in that venue and then we, uhh, just solicited the district for $150,000 to upgrade our planetarium. So we have a planetarium on-site and it was, you know, the antiquated projector type of planetarium, but we’ve just now upgraded to these two, you know, cutting edge digital projectors that are going to allow us to not only do presentations and planetarium shows about stars, but it’s going to be able to show movies about various science topics and also across the different disciplines. And the next wave of that is bringing hand-held devices for students to have interactive abilities with the planetarium presentations. So needless to say, along with that, there’s going to be a lot of new professional development opportunities for staff to learn the software for the planetarium, umm, as well as some of these other devices that we’re bringing in.
Researcher: Quite a broad use of technology. Everything.

Hotel: Absolutely. And again, you know, our understanding is that technology used to be something that we taught in the school. We don’t need to teach you anymore because kids come in knowing it. So now we have to find ways that we’re incorporating technology. Technology is another medium. So it’s just like when you go into an art class, and you have the option to draw, or paint, or sculpt, now you can generate. So you can draw, paint, or generate the virtual way, umm, within the art, but you can also do that in any academic areas, too.

Researcher: Excellent. Question #7: How do you perceive your role of committed leadership regarding technology integration?

Hotel: So I think I got into education at a great time, because I think I got in education exactly when the tech boom started happening. And so I was, you know, when the first iPhone came out, or when e-mail started to hit the scene with educators, I had complete buy-in myself. So I feel like I’m in a really good role as a leader because I don’t just, you know - I practice what I preach. So I come in and I use technology regularly. I mean, you’re sitting here with me and I have my phone in front of me, my iPad in front of me, you know, I’ve got a computer with me, two computers on my desk, you know, anything that needs to happen in this building is something that I need to know how to do and communicate to staff. When I do presentations for staff and faculty meetings, I’m always using my technology in a way that I want to see them using in classrooms. So I modeled those lessons for teachers. Umm, many times staff don’t know resources that are out there – and I shouldn’t say that all staff – but sometimes they bring to me. But whenever I have it in my hands, I show my staff so they can also see how it can be used in the classroom.
I’m just looking at the question again – so how do I perceive my role? It’s invaluable. I think that the leader of the building absolutely needs to be a key component in disseminating and using the technology and the building so that staff knows the value of it. When I use it, I validate the importance.

Researcher: That’s like the finding right there – that one sentence! That’s what it’s all about.

Hotel: Yeah. Yep.

Question #8: This is general and broad. What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?

Hotel: I would say that, you know, I would like to see all schools kind of organize on something like this. Umm, I think where the critical components is having somebody you can rely on as a coordinator in your building, umm, to maintain – the actual physical equipment - and train staff. I’ve been in buildings before where if you’re not tagging your equipment, and keeping it locked up, or keeping it organized, it gets damaged quickly, and it can become antiquated quickly. And if you don’t have machines that run, you don’t have a program. You’ve got to be able to get students to a level of responsibility quickly so that using the stuff isn’t taken for granted, and it’s not treated as an insignificant thing, but it’s treated with respect. Umm, I would also add in that we do a lot of training with families because kids are coming into school with technology and the misunderstanding of its use because, umm, as I mentioned, kids live with this technology, so we battle all the time with their level of understanding of what’s appropriate with this technology, and they come in and abuse technology. So not just the physical use of it, but the conceptual use of technology is critical. If kids don’t have a level of respect of what should be happening on their device, then they might not be able to use their device. I mean, every kid walks in with a cell phone, every kid walks in with a camera on that cell phone, every kid walks in with access to
our Wi-Fi and the ability to take a picture and post it in real-time, and the drama that can ensue after that can be quite distracting, so what the function of the technology is or the purpose at school. So educating parents is definitely a big part of what we do. We just had – it’s on the district website – if you wanted to use some of that as anecdotal stuff – but, I just taught a workshop for middle school parents from three schools on the use of technology. And so we did it through showing the movie Screenagers. We had a full house – like 500+ people here. Umm, and we had a question and answer panel afterwards with the police department, with some tech people in the district, and myself. And it was a very effective way to get the conversation started for families. We also put out a newsletter earlier this year that has to do with – we call it App Alert – but it was like the seven deadly apps, you know, that we see kids using now that parents might not know about, you know, ranging from photo vaults to non-private or public posting apps with no barriers where kids are posting ridiculous pictures of themselves doing the craziest things, and anybody who knows their screening has access to it. You don’t need to be a friend or an invitation sent; you just have access. And so kids are getting into situations that are very damaging, and they’re spilling over into school, and staining our push for technology. You know, we have waves of parents that would, you know, suggest that they want to bar all technology from schools because kids are misusing it. But I don’t think the answer is to take it from them, I think the answer is to educate them about it.

Researcher: Question #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?


Researcher: Ok. Thank you very much. This concludes our interview with Hotel. Thank you for participating.
Hotel: Absolutely.
Interview with India

Researcher: We are here with India on May 31, 2016. Thank you for agreeing to participate in the interview.

India: Thank you.

Researcher: Question #1: How do you perceive your role as technology leader of the school?

India: Well I think my role is to be ahead, or lead in research, an understanding about how technology impacts the classroom, uhh, instruction in particular – and learning. I think sometimes we move too fast to integrate technology, and my job is to make sure that’s at the appropriate place so the students actually learn when we’re implementing any type of technology project. And in this day and age, I think it’s important for me, as the leader, to try to be two or three years ahead of where we believe technology may go. Because we know that it’s going to impact our students down the road. Who knew that we would be taking the state exam on a computer 10 years ago? So when we started to hear that information, we started long in advance preparing our building infrastructure for PARCC - and not only for PARCC, because I believe that most assessments are going that direction now. You know, no different than your driver’s permit test. You used to take it on paper, and now you take it on a computer, and most everything is headed in that direction, so we are always looking to upgrade and update technology.

Researcher: Ok, #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

India: Well I think it’s important that I have the ability to use the new technology, and actually what’s really important is to make sure the teachers who are technophobic aren’t fearful because they see me using the technology. Umm, anything that we implement here, I’m on the front
lines with either implementing, or testing, or trying, and I’m also on the front lines of professional development. Quite often, I am the first one to say here’s what I experienced in the transition from one technology integration to a newer one or better one. Umm, we’re moving from Skyward to Genesis this year. Umm, I’m in all the meetings and when I talk about Genesis, I actually talk about what I have seen on the screen and how that impacted my job, and even to the district because they know that I’m a leader in the district with new technology and making sure that it’s appropriately implemented in the classrooms, so they can count on me for full implementation, particularly because I have the largest population of students and teachers, so if we can move this group, it probably helps those other principals – helps them move their groups because they have much smaller groups. We have 150-200 teachers and 2000 students, so we actually are first testing everything. We are because I raise my hand first. Last year, we had two infrastructure trials for PARCC; everybody else had one. We lead first and we shared that with district officials and principals with what we found, our concerns, our successes, how we felt students might do, and then that informed how we might train our teachers moving forward. Which teachers and the ability to cross train and turnkey technology integration going forward, so it really helped us. We’re doing that now with Genesis. They asked for people and I can just pick them because we’ve been through that. Being able to lead on that, uhh, my role is critical, because this environment is so large, and if you can do it here, you can almost do it in every other school because they’re smaller.

Researcher: Ok, #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many other per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?
India: So we have a combination of all of them. They’re outsourced; we like in-house PD, and we like ongoing PD. What I mean by that is we have an instructional guy who is in charge of instructional technology, and that’s integration into the classroom, so he is providing professional development weekly. Umm, everything from grade entry to, uhh, student information, to how to communicate with parents using our student information system, how to use Google Docs, uhh, if you looked at our PD calendar, I don’t think there’s a week where we’re not training. Teachers can come during lunches, during their planning periods, and certainly during our professional development days throughout the year. So it’s ongoing, it’s all the time, and it’s targeted. We do want to target certain groups. And we’re mandating, in some cases where teachers struggle, I’m able to say to that group teachers we want you to go to this particular training because you need this support, and this support’s going to help you going forward. Our technology guy will go into classrooms – it is a big part of our evaluation system, uhh, we want to see what technology is used, how it was used, are they actually using it for technology integration? I was just in art class, and he said to them, remember you can use the Chromebook to do the research about the culture of the type of art you’re using. I found that very neat because the student went and grabbed a Chromebook in a hands-on environment. And we like for teachers to practice; we believe you have to practice to make mistakes.

Researcher: This technology coordinator – is he school-based?

India: School-based. He helps out in the district. He really just helps set up; he’ll say I’m going to do tips on Google classroom, and you can come during your lunches or certain periods throughout the day. So teachers who have off those periods can come at their leisure.

Researcher: Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.
India: We’ll have professional development, and then we’re looking for implementation of maybe what they learned. We are also asking, can I come to your room and help you integrate this new technology, or this new instructional tool, if it’s a laptop, or Chromebook or iPad, and quite often we are in there helping also. I think what you see is you see a community of learners. Teaching used to be individual learning. I think what we’re forcing is for everyone to kind of learn together. It’s okay to turn the device on and not know where to go because there’s a bright student in there who can stand up and say hi, I’m going to take you through this.

Technology helps us become a family of learners – a group of learners. So what we’re finding is kids learn different anyway, umm, so let’s see how we can connect some traditional learning to the new ways with technology. We have one class we are field testing now. Everyone has a device, and they’re huddled around, the conversation is rich. No one is off task; one person is researching, one person is writing notes, and they’re having this conversation. And you’re going that’s it - that’s what it was intended to do. It was intended to be a powerful instructional tool. And when used appropriately, we can see the tremendous benefit from it.

Researcher: Question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

India: So we have a district technology coordinator. Umm, he’s the guy that we actually reach out to say, ok, is our infrastructure – what are we doing to make sure we can do the things that we want to do; having 600 computers on, having great wireless in a hundred-year-old building? So we started that work two years ago. He ran a few tests around the building in a few places where you couldn’t get the Internet, so we updated some equipment. Can we access technology easily? Because nothing’s more frustrating than trying to access a movie and having it buffering
on the computer when you’re trying to use the technology. So that happened to us during the first big integration. We needed to make sure the infrastructure was set up. So on every Chromebook cart, there’s a wireless port. So no matter where you take, it has access. And then we upgraded our switches, and routers, and everything in our building. But we started at the district level, because that takes a commitment – a district commitment with funds, and money, and a vision – someone who can come over – I’m the principal who screams we can’t get on in the building. We have a map of the building that is color coordinated that indicates where support is needed.

In our building, we have an instructional tech guy, and we’ve got two guys who are in charge of hardware and software implementation, updating computers, and things like that. One guy is located across the street and one guy located in this building. The other guy is worried about the technology in the classroom.

Researcher: Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

India: I’m a big part of creating the plan. I’m a visionary; I am the plan. I think about it as you have to come through me know what we need anyway, so I can probably pick apart any plan 10 times and say, you know, we need this, we don’t need that. And I don’t do it just alone – I have five administrators with me in the school, and the teachers, so we don’t let the district drive the plan. We say here’s what we need and it’s worked really well. That’s why we do so much in-house. Our teachers say we need PD on this, and we plan it. That’s how it works. And then we look at the school as a whole and say what’s coming our way, such as transition to Genesis, and we plan it.
So it used to be that the district had this plan was in a ghost town, and I would say wow, so what are you doing with that? And then we got smarter. PARCC actually really helped us, as much as the town and probably many of the committees around may be against PARCC, we were able to go from, probably M-Z in terms of technology. Within one year we went from a line to get into the library to having 30 mobile carts with Chromebooks, and now you have a mobile lab, and you don’t need to go to the library. And then printing we upgraded. You can print here via the Internet. So we really went, like, uptown! Teaching everybody how that works was a challenge too, because they didn’t understand if you print a big job, you actually need to go there and get it. So our plan was – most people say you need a big plan before you get all this stuff – I’m the opposite, which freaks everyone out. So everything that we’ve done here in my seven years, I’ve put everything in place. They said we need to get Chromebooks – yeah, let’s get 600. We’ll figure out how to plan for it later. And then along the away, we had the plan, so the Chromebooks arrived, we’re a little bit behind, we catch up, and now we’re all in lockstep. The plan is great, but if you don’t have Chromebooks, it’s just a plan collecting dust. So I learned, when the resources are there, go get them. We know that technology is evolving. So the plants grow as we grow. We may go into a year where we know – like this year is transitioning from Skyward to Genesis, but we know within that is going to be reaching out to parents, attendance, and all those kinds of things. So we all decided as a district we’re going to Genesis, and then we put the plan together – and then we did that with the district officials.

Researcher: Question #7: How do you perceive your role of committed leadership regarding technology integration?

India: Umm, I think my role is to always be committed and to be open to a change and to new ideas. Umm, my key role is to make sure that when we do integrate or implement something,
that we do have a plan for sustaining it. So I don’t believe in new every year. That’s very
difficult for people because we’ve got offers to add this or would like to try this, and I’m saying
no, we haven’t mastered what we’ve implemented. So we have 600 Chromebooks; we’re going
to master the use of those in our classrooms with our kids, and we’re going to upgrade that
technology before we go to something new - unless it becomes obsolete and we have no choice.
My commitment is to make sure that we do what we do, and we do it well. We don’t keep
piling on technology. My role is to make sure that we continue to grow, and as I said before, to
always be a visionary, thinking what a school might look like. We have one class that’s a one-
to-one student ratio. We didn’t do that just to have a class. We did it to test, to see if I may be
able to somewhere along the way be a visionary and get a one-to-one ratio for 2000 students in
here – everyone has a device. So that’s where we’re going. Everyone said, boy that’s a big goal.
Well, I know 600 Chromebooks was a big goal, but we got there. So you start something
because now I felt in my conversation with the people who make decisions, I have that as my
evidence. Let me tell you what we did. This is what I witnessed. And I have my own
experience traveling to these other schools, so that’s always been a part of my plan to make sure
that we try something first and then see if we can implement it in a big way.

Researcher: Question #8: What comments or observations can you add to provide the researcher
with additional insight in your school’s process of technology integration?

India: Umm, what I would add – just be a visionary, and I think the word is to be steady. Don’t
push so hard that you get too far out in front of the mission. And don’t lay back so far that you
never accomplish anything. When I talked a few minutes ago about getting the Chromebooks,
and then I talked about making sure we have all the updates for the Chromebooks, and then we
don’t implement anything new that’s major because we need to master, you know, that’s being
steady. Get the stuff, do the training, do the updates and maintenance of all machines, and all of the people using the machines become masters, and what that does is when the new technology implementation comes, you have been through that, and everyone knows what that looks like. So the first time it was this big and the second time, it’s this big. So I would say just be steady. Don’t give up on ideas because they sound too big, and you don’t have resources; all that stuff can come later.

Researcher: Question #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?

India: Persistent integration (of technology). Which means we didn’t give up on it. Have a vision, and just know that not everyone’s in the same ballpark.

Researcher: Ok, thank you, India, for participating in the interview.

India: Thank you.
Interview with Juliet

Researcher: We are here with Juliet on June 7, 2016. Thank you for agreeing to participate.

Juliet: You’re welcome.

Researcher: Question #1: How do you perceive your role as technology leader of the school?

Juliet: Umm, I think like all things at the high school, I have to take the lead and be a role model for the students and the teachers – really, the teachers. Umm, if I support it, I think then that’s going to make initiatives go further. I don’t have to be the one who comes up with (laughing) the innovative technology. I’m going to guess there’s going to be some who are going to be using technology more often and have better ideas, but if they come, then I can support, embrace it, and help them find a way to lead the way.

Researcher: Ok. Question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Juliet: Uhh, so for example, like, we just switched over to be a Google school, right - Google Docs. And, umm, I think if I embrace it, and you know, then the teachers feel more comfortable it. Because obviously there are some who have no problem with it, who are advanced, you know, way advanced, and there’s others who are going to be - don’t like change, happy with the way things were, umm, and so, you know, I just figured I’ll start implementing and using it and then, like, using Google forms – one of the first things I could do with staff was use Google forms. You know, throw some things on Google Docs. I still use a lot of Word and Excel because I’m very coupled with it, but when I bring stuff with the staff, I try to use that a bit. And I think it just helps, umm, them feel comfortable with it. And then making sure they’re aware of the changes that are related to bringing that, and professional development that is available to them. I think it was actually a pretty smooth transition here.
Researcher: This is the first year, you said?

Juliet: Mmhmm.

Researcher: Ok. Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Juliet: So a lot of our PD it is like small workshops. So there has been a fair amount geared towards Google, Google classroom, Google Docs, you know, implementing all these things. And so they run throughout the course of the year, and they have been readily available. And our Assistant Superintendent has really taken the lead with those and then, as you know, recruiting teachers to teach some of those classes. Umm, I don’t know how well – how many teachers have been attending. Umm, you know, I know that there were many teachers in the beginning of the year who were taking advantage of that, but I think like all other things (laughing), as you move towards the spring, you’ve got other things going on. But I know there’s some teachers that Google classroom is something that some teachers have really tried to use that - to establish in the classroom, and thread that through their lessons.

Researcher: So primarily in-house. Assistant Superintendent and he or she got other teachers involved and allowed them to lead.

Juliet: Mmhmm, yep. Especially with the technology. Umm, you know, as far as I’m concerned, I’m involved with approving professional development, and we do allow teachers to do outside PD. There’s not a ton of money for it, but we do allow for it, but I haven’t had teachers coming to me about the technology PD’s outside of the district.
Researcher: Ok. Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.

Juliet: Again, I don’t mean only to focus on Google because it’s not the only thing they’ve been doing, but I think that the way Google classroom has been set up can really change the way that your classroom runs. We have a lot of, umm, COWS (computers on wheels) that many of the teachers have access to. They all have access to it, but I think they can get it when they need or they want it, and so, but there’re some teachers who are using them almost every single day. So you go in the classroom and, you know, their documents are there, and they can submit things, and they can communicate, and they can blog. And that’s just a whole other dimension to the classroom that a traditional classroom doesn’t have. So I see that having a great deal of benefit. And even just the ability for students to share documents, to work together, uhh, is different than just, you know, they can communicate, they can work from home, they can be working together instead of having to meet, you know, at the library or at someone’s home. Mom’s not home…

Researcher: Good ol’ days.

Juliet: Right!

Researcher: All right. Question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Juliet: Umm, so for example, if we have a technology problem, who do we go to?

Researcher: Yep!

Juliet: Ok. Uhh, it depends. If it seems to be something in-house, minor, we actually have a technician who is usually here in this school. We have a few technicians in the district, but someone tends to be in the school, so he’d be somebody that we would reach out to first.
However, for something that’s more involved, you know, as far as the network is concerned, etc., we do have a supervisor of technology who we would turn to. We also have a technician who is really more of like our network mastermind. He’s actually not even in state. He moved to Florida (laughing).

Researcher: Wow.

Juliet: He’s living in Florida but they kept them on so, uhh, we don’t usually contact Ryan directly. We would go through Lucian, and Lucian would contact Ryan if we had a, you know, whatever it might be - if we had a virus in the system, if we need to identify what student did what, where, when. That – they would reach out to Ryan in Florida.

Researcher: Interesting. So your technology supervisor would reach out to that individual?

Juliet: Yes.

Researcher: Ok. And if – you mentioned, let’s say there was a minor problem, and the tech specialist here would address it. How would the tech specialist get notified?

Juliet: So there there’s like a help desk that the teachers can reach out to. If it’s something that the administrators need, we just call him.

Researcher: So teachers use the helpdesk and the admins call directly?

Juliet: Mmhmm, yeah. I mean, if the teacher came to us and it was something they needed right away, we would just get Jeff, you know, depending upon what it was.

Researcher: Ok. Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Juliet: So, since it’s my first year, I’m not exactly sure what has been happening in the past.

There is a technology committee, and the technology committee has met a few times this year,
and there is a plan – they have been acquiring new laptops for the teachers, umm more Chromebooks for the students. They have an idea of becoming a one-to-one district, although we are not close to that yet. So, as far as the bare bone structure, the far-reaching goals, that’s been communicated to us as administrators. That hasn’t really been communicated to the teachers, but that would really be going through the technology committee. And exactly why things are, you know, they’ll say something like we’d like to be a one-to-one, but we’re not moving in that direction until next year. You don’t really know what is the reason, I mean, we’re going to assume it’s money. So I’m not exactly sure how they plan on going one-to-one, once we are one-to-one, how they plan to sustain, etc.

Researcher: So the tech committee; who is that comprised of?

Juliet: Anyone can be a part of it, but the Superintendent is on there, and the Assistant Superintendent, the tech supervisor, umm, and then representatives from the school.

Researcher: Teachers? And maybe specialists? Well, you said tech supervisor, right?

Juliet: Mmhmm. Yes.

Researcher: Are principals or other administrators?

Juliet: Yeah, so they have like, a meeting that we go to, right? That’s when we kind of found out some of the plan and some other things are going on as far as, like - meeting in small committees, we haven’t really been a part of that. Other times a large committee can be formed, and you can volunteer for that. And that hasn’t really happened.

Researcher: Ok. Question #7: How do you perceive your role of committed leadership regarding technology integration? And this is in reference to three (side of the pyramid) happening simultaneously: PD, maintenance and technology acquisition.
Juliet: Umm, we are talking about with the technology integration? Ok. Umm, you know I’m committed as much as they’re going to give me money for, and obviously we have made different things that we have to balance, you know, our budget for. But I would say central administration very much supports technology and the integration of technology in the classroom, but the PD – umm, and so, we’ve gotten a great deal of support. So just recently, our Assistant Superintendent came and said we’re going to be starting to give all new laptops to the teachers. And that’s just an attempt at getting them involved in using more and more technology in the classroom, etc. So some have. But a lot of them are outdated and they’re frustrated that they’re outdated. And they’re going to start at the high school. So our central administration has been finding the money and been saying hey, go for it! So more often then when I go and say hey, we really could use this, they’ll say, we’ll find you the money. And we don’t have a lot of extra money here (laughing)! So I think that that - they are committed. And we are too.

Researcher: That is going to happen this year – where all teachers get laptops?

Juliet: This summer, they’re going to take all the old ones that they have and replace them with the ones that the high school.

Researcher: And then maybe leak it down the other schools?

Juliet: Mmhmm. Yeah, yeah.

Researcher: Ok. Question #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration – if any?

Juliet: Hmm. Umm, I still think it’s very much a teacher by teacher, uhh, you know, integration. I wouldn’t even say department by department. So, you know, you might think - I don’t know, maybe the sciences are going to be more involved in the integration of technology. But we have some teachers in the science department who are very involved in just even setting their whole
classroom around technology. They’re not using their textbooks, but using online sources to have the kids, you know, finding online labs to, you know, explore and have the kids be involved with – and others who are more traditional. Umm, I would say that our media specialist actually is somebody who is very forward thinking as far as technology is concerned. And we actually just hired her this fall. We had the media specialist retire, and the committee that hired her – I was a part of that search committee – that was something that we were looking for – is somebody who was going to – so that the media center isn’t just a place to just check out books, or have online resources, but that the teachers, that the media specialist would actually find resources, electronic resources, the teachers can use. Umm, and then the media specialist could help bring that to the teachers. So I think that’s another area where that’s going well, but again, it’s is on a volunteer basis. If you want to do that, if you think that fits your teaching style, then great!

Researcher: Whatever it takes to meet the objective, right?

Juliet: Exactly! And I think many of the teachers you’ve got, again, teachers who are just like that’s great, or that’s going to save me time and I’m going to do it this way, or I’m just going to make my classroom better. And you have others who where if you have the time, I’d like to do this, or I’d like to do that. And I think that’s where the media specialist really helps because she’s doing some of the legwork that maybe you’d like to do as a teacher. And then you have others who are like no, that’s not my thing.

Researcher: Ok, #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?

Juliet: Teacher by teacher.

Researcher: I like that. Ok, that concludes our interview. Thank you, Juliet

Juliet: Wow! That was fast.
**Interview with Kilo**

Researcher: We are here with Kilo on June 9, 2016. Thank you for agreeing to participate.

Question #1: How do you perceive your role as technology leader of the school?

Kilo: My role as principal and tech leader of the school is to make sure I’m constantly communicating with the teachers and with our tech coordinator to make sure the teachers and students have the, uhh, tech they need to help supplement the curriculum, as well as meet the tech plan that we currently have within the district.

Researcher: Ok, question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Kilo: I think as a principal or supervisor, you have to lead by example by providing them the opportunity to use the tech, see yourself using the tech, and also the benefits of using technology because the use of technology in and of itself isn’t a reason to use it.

Researcher: Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Kilo: In the last few years, we changed the way we do provide PD for tech, where now there’s training opportunities both inside the school and outside, but more importantly, there’s follow-up with PLCs and, umm, turnkeying by the staff to assess how they’re using the tech, if it’s beneficial, what needs to be tweaked, what needs to be budgeted for next year. Usually our grade level teams lead the professional development.

Researcher: Ahh, interesting. Ok. One team per grade?

Kilo: Correct.
Researcher: Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.

Kilo: Staff see the benefit of why they use the technology and how to implement it with the students. The students see the benefit to it as well as the parents. Umm, and staff have the benefit of speaking with and discussing whatever tech initiatives we’re operating with their tech supervisor, tech teacher or with grade level team members.

Researcher: Question #5: Evaluate how your school addresses activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Kilo: Well, the first line of defense is a staff member contacts our tech teacher within the school, and if the tech teacher needs assistance, they’re requested to fill out an online ticket to the district technician - who then comes addresses the problem.

Researcher: Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Kilo: Well, first we do surveys and reflective pieces as to the where the tech should be. Umm, then when we do provide it within house, it’s usually provided within designated team times that take place twice a week. And then assessed in the following weeks as to how the initiative for the activity progressed. Uhh, we do refer to the tech plan. I believe it’s a three-year tech plan, correct?

Researcher: Yes, mhmhm.
Kilo: The three-year tech plan acts as a guideline as to what we’re trying to address, whether that be typing or any other initiative. Uhh, that’s the building block in where our training takes place.

Researcher: Question #7: How do you perceive your role of committed leadership regarding technology integration?

Kilo: As a principal, what I try to do is get our Sclp (School Improvement Panel) committees, our team leaders all on board with the vision as to where the school is going. And, hopefully that vision is formed through them as well as the discussion with the team and the teachers in order to have a set leadership – oh I’m sorry, not set leadership; set vision as to where we’re going as a district. And my job is to provide them the time, the tools, and the conversational piece with other staff members to reach that goal.

Researcher: Question #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?

Kilo: Umm, next year we are implementing a one-to-one Chromebook initiative in the middle school. Umm, making sure that before we went about doing that, certain surveys in the communication piece is provided to the parents to make them aware of the initiative, and what the school is going to expect, as well as what to expect from the home front. And I would think with any initiative or activity, that communication piece is integral.

Researcher: And #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?

Kilo: It supplements the curriculum. It provides an alternate means for students to express what they know.

Researcher: Wow, one, two or three...that was like (laughing)...
Kilo: I thought it was three statements! Use one, two, or three words (laughing)!

Researcher: (laughing)

Kilo: Supplements the curriculum. Uhh, varying displays of knowledge. How’s that?

Researcher: Nice. This concludes our interview with Kilo. Thank you very much.
Interview with Lima

Researcher: It is June 14, 2016. We are here with Lima. Thank you for agreeing to participate.

Question #1: How do you perceive your role as technology leader of the school?

Lima: As the creator of the budget, umm, it’s my responsibility, among other things, to make sure that there are sufficient funds to both, umm, purchase new and cutting edge technology as an instructional tool for my teachers, and my students, umm, and also make sure that there are replacement funds for equipment that ages out. Umm, my role also involves dissemination of new instructional materials that are digital that teachers are using in isolation so they’re used a little bit more uniformly, when appropriate. Umm, my role is to target the early adopters in the building and support them as they disseminate information. My role is to serve as a model for the use of technology. I can never say oh, I hate Google mail or well, I’m old school, so I’d like to hand write that – even though both of those things may be true.

Researcher: (laugh)…which is a perfect segue into #2. How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Lima: Well, I will preface that by saying that I am right now the senior administrator in this district. I have been here the longest in my position of any – not just building leader, but administrator. And as such - and I’m also somewhere near the top of the pay scale. Ok? As such, I am daily aware of the fact that I can never be perceived as being out of touch with current technology. Ok? For my own professional reputation, that would be a very bad idea. Ok? And if I’m going to ask teachers at any stage of their career to use emerging technology in a positive instructional way, I have to be ready to adopt new things, use them, and model that usage for my staff.
Researcher: Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Lima: Most of our professional development opportunities, particularly in the area of technology, are coordinated by our current Assistant Superintendent of Schools. He recently adopted that title; his title before was Director of Curriculum and Instruction. And as such, his role was really to coordinate PD for the entire district. Umm, we do have a technology specialist who more consults on the hardware aspect of technology acquisition. Umm, and I work closely with the Assistant Superintendent to identify technology needs in my building. But much PD is coordinated through his office. I will say 75% of it is in district, although we do also participate in, umm, out of district opportunities. Like some work at the Google Institute, we work with the grapple Institute, umm, we’re doing some off-site work with Rutgers University. So there’s some offsite, but a lot of it is in district - either bringing in consultants or providing our own.

Researcher: Ok, #4: Explain tangible benefits you see in the classroom from these professional development opportunities.

Lima: Let me highlight one particular one as a good example. Umm, some of my staff members came to me independently last year, and explained that there was a new website out called reading A-Z, also known as Raz-Kids. It’s a dual platform, umm, Internet resource for reading. Ok? They told me it was something they wanted to use; was there any way I could obtain this for them? I bought a classroom license for three teachers in the building. Ok? After talking with them, seeing what they were doing, having staff members talk amongst themselves, umm, the request was made that we get a schoolwide license. Ok? Cost us a couple of thousand
dollars for the year; not a small investment for our school. All right? I then arranged for us to have a webinar that I encouraged all of our staff to attend, on a faculty meeting afternoon, when teachers are pretty much obligated, outside of an emergency, to participate in PD. Umm, which meant that the teachers who were early adopters got to see new ways to use the program, the teachers who were saying, eh, nice idea but I don’t really have time to do that, or my kids are too young to use Chromebooks kind of had to attend and listen to it. And then I followed up by asking during lessons – ok, did you – when do you utilize Raz-Kids? Have you been doing blah-blah-blah-blah-blah-blah? So kind of a multi-pronged approach to just one particular resource. So that you’re bringing in – you’re satisfying the needs and requests of your early adopters, you’re bring along your stragglers, and you’re also supporting them with some PD, umm, that says here, you must listen to how this could possibly help you.

Researcher: Multi-pronged, indeed!

Lima: Multi-pronged!

Researcher: Question #5: Evaluate how your school addresses maintenance activities and technical support in effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Lima: We have an IT department. We have an online ticket process, so that if I come in and, umm, I install a new ink cartridge in my printer and my printer starts sending out weird messages, which it did the other day, I send in an IT request on my computer. Within – I don’t know if it’s this fast because I’m the principal, but I don’t think so – within a half an hour, my IT specialist is here. We have a crew of, I believe, for IT, umm, workers who work under the Director of Technology.

Researcher: Districtwide?
Lima: Districtwide. Ok? One is off-site, so he’s really doing infrastructure stuff, umm, from another location. Three are in district, and they are here ready to do everything from change light bulbs, to swap out printers, to troubleshoot problems. Ok? They deal with all the hardware stuff and they do it very efficiently. The ticketing system also tracks what kind of problems are being repeatedly addressed so we can look at the bigger picture, and say ok, where are our problems? Or how many manpower hours are we spending changing off printer cartridges? Maybe we just need new printers.

Researcher: Do you remember the name of the ticketing program?

Lima: Yes, it’s called my school building; myschoolbuilding.com. They have a maintenance platform and they have an IT platform.

Researcher: Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Lima: This might be the area where we need to do a little bit of improvement in. I have my own mental plan for where I need technology to go in the building. Ok? Right now, we are very much encouraging the use of Chromebooks and digital learning – or what I call dual platform learning. Umm, both paper text based and digitally based in all of the classes; particularly fifth grade, down. And that involves having enough Chromebooks available for kids to use - whenever our teachers are ready to use them. Umm, so part of what I do is plan, ok, which Chromebooks are we having problems with, which carts are not working, where is that money coming from, is there a district plan to purchase and replace, umm, do I need to go to my home school association (our parent organization) and get some funds – get a donation from them? Umm, I know as a building where we need to go, and I know whenever I hear from teachers,
well I would use Chromebooks more with my kids if they were available. That means I need to deploy more of them. I know there is a district technology plan. It’s not always as clear – it’s not – nevermind always; it’s not as clearly communicated as it should be. This is anonymous, right?

Researcher: 100%.

Lima: Ok.

Researcher: 100%, Lima.

Ok, question #7: How do you perceive your role of committed leadership regarding technology integration? And that is specifically referring to the three topics we just discussed: PD, maintenance activities, and planning activities for future acquisition.

Lima: Umm, my role is to be aware of current research and instructional practices – best practices as far as, umm, what we should be doing in each of our elementary classrooms to move instruction forward in an inappropriate way. Ok? These days, that means to move instruction forward using technological resources. Ok? It’s very easy for teachers, particularly experienced teachers, to do what they’ve done well for years, next year, again. The reality is even though many children still read paper-based materials for pleasure, in the real world we don’t go to paper anymore for informational text. Ok? If you have an emergency, if you need information, the location of a restaurant, to I need to understand this problem, you know, in my life, no one walks to the public library; they Google it. And so what we need to do is we need to provide teachers with opportunities to understand, number 1, that’s authentic reading for emerging young people, and we need to teach them both digital citizenship, and the proper way to evaluate that the materials that they’re reading online are accurate.
Researcher: Question #8: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration? If any.

Lima: You’ve covered a lot of things. I think it’s an ongoing commitment. And I think the most difficult thing about technology integration is that it puts more and more responsibility on individual teachers to source resources. Ok? It used to be that we’d all get together, we would look at curriculum, we would define a textbook that really is appropriate for a fourth grade, we would purchase it across the district. Boom. Done. You’ve got your resources. That’s no longer the way that teachers find resources. They find them by sharing on different teaching sharing sites, umm, you’ll have a teacher say, hey, I’ve used such and such website; it’s really great for blah blah blah. And then in three years, that resource has really aged out and it’s no longer appropriate. It no longer either fits new standards, it doesn’t fit your population, or somebody has come up with a better mousetrap. And building leaders no longer have the time to do all of that groundwork. So there’s more and more pressure on teachers to really be innovative and spend their time, really finding out what’s out there and whether or not it’s worth using - and sharing.

Researcher: Question #9: Final question – using one, two, or three words, how can you describe the essence of technology integration in your school?

Lima: Emerging and exciting.

Researcher: Ok, that concludes our interview. Thank you, Lima, for participating.
Interview with Mike

Researcher: We are here with Mike on June 15, 2016. Thank you for agreeing to participate.

Mike: You’re welcome.

Researcher: Question #1: How do you perceive your role as technology leader of the school?

Mike: Well it’s pretty simple. As a school leader, I’m responsible for leading every aspect of it and technology being a major component in educating children of the 21st-century. I – there’s a couple of perspectives when you’re dealing with technology, because when you’re leading it, you’re leading being able to secure funds to be able to purchase the actual hardware, what district allocations already exist, what other school budgetary items you can manipulate to support whatever deficits exist, and then to also consciously involve any type of fundraising to then subsidize the rest of the gap that might exist. So there’s - one aspect is definitely the budgetary component for that, umm, for which is ever-changing, because we know how fast technology is constantly turning over, and then the other aspect of it is directly connected to professional development and teachers, and their comfortability - when they’re educating children who are driving the technological world.

Researcher: Ok, question #2: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.

Mike: Well some of it, umm, is connected to my responsibility I guess for - there’s umm, you know, budgets that come in many facets, so district initiatives are initially year one always supported by the district financially. But then you’re responsible for securing funds very often to maintain years out. Then there’s also the need to recognize the fact that you can only impact students as much as one, securing the devices, and two, ensuring that teachers have professional development. If you don’t know how to utilize the hardware, the software, if we’re talking about
laptops, iPads, if we’re talking about Smartboards, if they don’t know how to use the devices correctly, then there’s no way our children are going to be up and running on these devices themselves.

Researcher: Ok, perfect segue into these next few. Question #3: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?

Mike: So there’s always a struggle because we only have 365 days a year, and we only have our students here about 183, and contractually, teachers are only obligated to be working their contract for about 187 days. So that doesn’t afford you much professional development opportunities. You do need to get creative. The first step is to – actually, in our upcoming school year, we will have five full day PD days. And what that will look like is that, umm, we offered this on the full day PD day, there were about 40 different opportunities that staff could go online and select their a.m. and p.m. session. So although 100% percent of those 40 offerings weren’t dedicated to technology, a large percentage of that was. So that was definitely self-driven; teachers that felt as though if they could learn something new from PD, they took advantage of that opportunity. Another aspect at the district level is that during the summertime, outside of contract hours, there have been a host of PD opportunities offered for teachers, because, uhh, many staff members that are a part of our district technology team – they work 12 months. So whether it’s an initiative that we’re rolling out Google classroom, there were various professional development opportunities in the summer, but then that was also self-driven because teachers weren’t required to attend. This I foresee, and now that I think back on it, has been happening over the last couple of years, so there’s typically a schedule that will come out, and
then, you know, you can plan your vacations, I guess, for teachers accordingly. I don’t know; I’m 12 months, so I’m here regardless. But, umm, the opportunity is there for them. Uhh, the next piece is, I would say on the building level, there’s not many initiatives that I roll out without offering simulations. So I like to run my professional developments in simulation form. So let’s say the topic was centered based learning. Teachers would walk into the room, and the instructor would act as though they were children, and we would throw them into that simulated moment for them to learn. And then we had a fundraiser supported by our PTA, and then bought each one of our teachers this year an iMac laptop, which had not been outfitted by the district. All of our teachers aren’t provided laptops. So because we are rolling out these laptops, with tremendous financial support by our PTA, they wanted to know well what we were going to do in the way of PD? So there were staff meetings that we dedicated to professional development, and for some teachers, it’s just even how to turn it on and how to navigate an Apple device. And for others, they were all set and ready to go, and they wanted to take their Google classroom to the next level. So after offering some staff meeting time, there also is the opportunity during department meetings where all of our math teachers sitting together can kind of have that moment because now they all have these devices. So they very often sit in meetings, and they might have a Google document open, and might be asking questions, and they’re simultaneously utilizing technology in the moment. Or they’re talking about, umm, experiences and best practices that they’ve used in their classroom, and can demo it right there in the moment. And then finally, I would say, I have a technology teacher who is a related arts teacher, so she teaches children how to use technology. Also – she serves also in a capacity of being the technology coordinator for the building. And then we also have a Webmaster in the building who’s responsible for our webpage. These two stipend positions – these two people, took it
upon themselves to create the technology club this year, which was just a rather proud moment, I guess for me as a principal, just to see staff members take such initiative. And they created this club that meets in the morning and after school every couple of weeks, and it initially started where they kind of created the agenda, and then just naturally, this group of teachers that volunteered to go, it segued into, like, started notice that we can differentiate the a.m. versus p.m. And there were certain teachers that would go to the a.m. because maybe those skills are more basic versus the p.m., where they were kind of on a different level of where they were going with how they were implementing technology in the classroom. So, you know, those are all of the ways that we are trying to support teachers with the professional development of it.

Researcher: Students allowed to go to that as well?

Mike: No. This is just for staff. So that they can turnkey.

Researcher: Great. Awesome.

Ok, so again, this again is a perfect segue. Question #4: Explain tangible benefits you see in the classroom from these professional development opportunities.

Mike: Well I mean, it just comes down to the fact that these professional development opportunities make it happen. Without them, you know, teachers are not going to, at a high rate, go out there and seek and figure out how to do this. Umm, there’s only but 24 hours a day, and I think we all know in education that you work far, far outside of your contract time, just in lesson planning, and grading papers, and thinking about how to redo a lesson. And to expect that teachers would be seeking this PD on their own time, it’s not fair. Umm, so without trying – without incorporating these opportunities, if you don’t, then you’re creating inequitable classrooms because how does the pendulum swing when you have a teacher who just has that natural desire versus a teacher who just doesn’t feel comfortable with it? And it’s human nature.
If we’re not comfortable with it, we’re not going to go out and seek it on our own. So I think that the benefit is that it definitely tries to maintain as much true equality for what our students are being exposed to and opportunities our students are having.

Researcher: Ok, question #5: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.

Mike: Ok, so we have a Director of Technology in district and he has a team that works under him. They work in different facets for, you know, and I don’t know all of the lingo when it comes to technology. Umm, but what I will say is that the team is very receptive to, kind of, what our needs are in the building. Umm, whether it be me calling the director in for meetings – anytime I sit down with my tech coordinator, I call him and also. Umm, for example, when we got the teacher laptops; there are a lot of different things that you need to think about - not just the actual laptop. Now we had to evaluate the age of our Smartboards, the age of the software, umm, just the infrastructure of our wireless in the building, umm, even down to the adapters that have changed from, you know, your iMacs are changing also. So even the adapter pieces that go into the laptop from your projector or from the Smartboard, umm, we had to look at all of that. And these weren’t necessarily things that were thought about at the beginning, you know? It was like after you got the laptops, you realized, oh, we’re running into some roadblocks for how to even use them - not even skill-wise, but how are we literally going to use them and get them connected to some things that are outdated? So just making sure that I am keeping the director in the loop with what pieces do we need, but also to bring to light that these are all things that should’ve been thought about beforehand, that should’ve been included in the initiative; not just the laptop. So you think it’s a real team approach that has to be taken. Umm, I definitely don’t
shy away from speaking up and fighting for what my teachers need. We currently are not a wireless district. We share our server with the municipality; one of few districts that have that type of set up. So, umm, there’s certain, just, dead spots around the building. So for next year, you know, the 2016–17 technology plan included us going to our own server, so we will be doing that. And I was happy to see that we were the one of the first – the first elementary school to already start, umm, being wired for that. So, umm, I think we’re fully wired, and we’re just waiting for the other components, so I’m excited to kick off the new school year being wireless. Researcher: Cool. That’ll be huge.

Mike: It’s huge!

Researcher: Well, another perfect segue; I don’t know how you’re doing this (laughing).

Question #6: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

Mike: Yeah. Definitely. Definitely. I mean, it only behooves me to refer to the plan because things that our district initiated are things that are supported by the district. So, then, that allows me to kind of utilize those funds prior to anything I might think of, or kind of missing the boat on it, as long as I stay in line with the district, then I’m going to reap those benefits. Umm, so that’s first and foremost, because at the end of the day, it definitely comes down to the dollar of what you can supply to the school. You know when we talk about, umm, talk about planning, we’re not talking about initiatives that are like, we’re going to buy a couple laptops. Were talking about, ok, we’re buying 30 laptops and we have to think about the cart that they’re going in. We have to think about the system where these devices are going to be used. So it’s a lot bigger than let me get my hands on these devices; there really has to be planning that goes into it. We
currently, umm, and it’s also important to just share that this is my first year in this building. And the predecessor was here for 27 years. So I took over, kind of, well this is how we always have done it, and you have to kind of deal with the community, teachers, and all stakeholders with kind of like kitten gloves until they trust you – until you can prove that, for lack of better word, that you kind of know what you’re talking about. Umm, and that you really do have children’s best interest at hand – you know, things of that such. But, umm, we have a number of different carts, we have Chromebooks, and we have iMacs in the building, and we utilize some of the carts to ensure that every day, teachers in every classroom get laptops in the room during their response to intervention (RTI) periods. And then we have another set of carts that are forced sign-up. So we are currently kind of taking a multi-approach for how we can get devices out there into the classrooms, because we don’t have enough for every teacher to have their own cart.

Researcher: Big school, I noticed.

Mike: Yeah. We have about 550, and we’ll be growing. We have 21 homerooms; we’ll be growing to 23 homerooms for next year. And, umm, and with that said – this just popped in my head, but one of the major challenges is if we were just dealing with general ed groupings, and you have these, you know, class sizes of 20 to 25 and, you know, I’ll have 23 homerooms next year, that really doesn’t take into account all of the resource rooms that I have in the building. So, you know, you could be very quick to develop this plan for carts to travel among these basic classrooms, where you have these large groupings of children, but then you also have to take into account the smaller resource rooms that support anywhere from 5 to 10 children. Umm, and then with that said, so if there’s 23 homerooms for next year, there are (counting in head) seven resource room teachers that I have that you want to make sure they get in on those opportunities
that the other teachers are getting. And then you also have to think about logistically. What if a
teacher only has like seven kids - what can we do about that cart of 30 sitting in a room where
they only need seven devices? So then how do we manage that aspect of truly working
efficiently?
Researcher: A lot of moving pieces.
Mike: So many moving pieces!
Researcher: Question #7: How do you perceive your role of committed leadership regarding the
technology integration?
Mike: You know I think it’s just – I think it’s just recognizing the fact that the children that sit in
front of us are not the same children that sat in front of us 10, 15, 20 years ago. Truly respecting
their ability to multitask, their ability to – they are literally driving technology. Technology
doesn’t drive them. And technology is trying to keep up with them. So I’ve got to be
committed! If not, I am not going to be a successful school leader. If we don’t think that we
have to have a stake in the presence of technology, then we are just sadly mistaken and should
find a new profession.
Researcher: Question #8: What comments or observations can you add to provide the researcher
with additional insight in your school’s process of technology integration?
Mike: You know I would just say that, to reiterate, that sometimes there’s just not enough time in
a day, I think, for teachers. There are so many rich resources that exist out there, and I think that
really having the opportunity for horizontal and vertical articulation among staff members, just is
such an integral part. Because to expect any individual to go out there and see all of the
opportunities that there are, whether there are just books that come alive, umm, different
programs, different websites, you know, the array of everything in all of its forms that we see,
umm, academics, or just like true information that we can be delivering to children. It’s just so hard to kind of evaluate, sort, and select. There’s just so much out there for us to pick from, so I really do think that, like, the vertical and horizontal articulation among staff members could kind of help to like, weed through, and we can have more healthy conversations about best practices, best websites, you know. Umm, for example, one of my teachers came downstairs and he was so excited to show me this graphic novel series that makes history come alive. Like, how cool is that for a kid? You know we’re not looking in those big, thick textbooks. We are going to read about this civil rights movement from this graphic novel. Like, it was the coolest thing ever! I feel like I was reading a comic book; like I kept turning the pages – I wanted to see more. So, you know, the fact that he stumbled upon this and then was able to come back and share – technology works very much in that way also.

Researcher: It’s just somewhat engaging, right (laughing)? A little better than the alternative.

Mike: Yeah. And I’m telling you, because it’s a show. Like you are putting on a show, and I would always tell parents when I teach in the classroom, you know, I’m trying to do cartwheels, I’m trying to do antics, because I’m trying to engage them and I’m trying to keep their attention, because I’m competing against technology – what they’re spending their time doing.

Researcher: Mmhmm, yeah. Ok, #9: Using one, two, or three words, how can you describe the essence of technology integration in your school?

Mike: The essence of it is it’s a marathon. We’re not doing short sprints here. It truly is about that strategic plan.

Researcher: Ok, that concludes our interview. Thank you, Mike, for participating.
APPENDIX D

Letter of Solicitation
Letter of Solicitation

Dear [Administrator]:

My name is Scott Curcio. I am a doctoral student at Seton Hall University currently enrolled in the traditional Ed.D. program in Education Leadership, Management and Policy. My dissertation topic is entitled the following: **NALB: No Administrator Left Behind: A Qualitative Study Regarding School Administrators’ Perceptions of Technology Integration**. I am writing to respectfully ask if you would be willing to participate in this interview. Please see the following points for more specific information:

* The purpose of this study is to explore how administrators perceive their roles as technology leaders and its influence on technology integration.

* This study will occur in May 2016, pending approval of the Seton Hall University Institutional Review Board. The interview would last 30-45 minutes, and will require no follow-up.

* I will be using an interview guide to facilitate the interview. The interview is 100% voluntary.

* The interview will be recorded using two audio recorders; one will act as a backup.

* Anonymity will be guaranteed, as no identifying data, such as names, will be used. Instead, each participant will be assigned a pseudonym.

* Once the interview is complete, I will store the audio recordings in a secure, locked safe in my residence. Further, once the data is transcribed, I will store that information on a flash drive that will also be kept in a secure, locked safe.

Thank you for your consideration.

Respectfully submitted,

Scott T. Curcio
APPENDIX E

Informed Consent
Informed Consent Form

1. Researchers’ Affiliation:
Scott Curcio is a doctoral student at Seton Hall University, currently enrolled in the traditional Ed.D. program in Education Leadership, Management and Policy.

2. Purpose of the Research:
The purpose of this study is to explore how administrators perceive their roles as technology leaders and its influence on technology integration. The researchers’ interview with you will last 30-45 minutes, and no follow-up will be required.

3. Procedures:
A 30-45 minute interview will be conducted to get the perspective of the administrator.

4. Instruments:
The only instrument used during this interview will be an interview guide, which will act to facilitate the interview. A sample of the questions to be asked is as follows:

Question Route:
Q01: How do you perceive your role as a technology leader of the school?
Q02: How does your use of technology impact teachers, staff, and other stakeholders in the district? Please be specific.
Q03: How do you perceive your school in providing professional development opportunities for staff members? For example, how many are there per year, who leads them (outsourced or staff in district), are they hands-on or informational sessions, and is there follow-up PD available?
Q04: Explain tangible benefits you see in the classroom from these professional development opportunities.
Q05: Evaluate how your school addresses maintenance activities and technical support in an effort to support and maintain the technology infrastructure. For example, explain the hierarchy, who is involved, etc.
Q06: How do you perceive your school in providing planning activities for future technology acquisition? Please explain how/if you refer to your school’s technology plan in the process.

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Q07: How do you perceive your role of committed leadership regarding technology integration?
Q08: What comments or observations can you add to provide the researcher with additional insight in your school’s process of technology integration?
Q09: Using one, two or three words, how can you describe the essence of technology integration in your school?

5. Voluntary Nature of the Participation:
Participation in this interview is 100% voluntary. If you refuse to participate, or discontinue your participation at any point during the interview, there will be no penalty.

6. Anonymity:
Anonymity is guaranteed throughout this research process. No identifying data will be used or recorded. A pseudonym will be used to identify you. Nobody will ever be able to link the data collected to the participant.

7. Confidentiality and Security:
In order to maintain confidentiality and security, I will store the audio recordings in a secure, locked safe in my residence. Further, once the data is transcribed, I will store that information on a flash drive that will also be kept in a secure, locked safe.

8. Records:
Nobody else will have access to these records. They will remain in the secure, locked safe at all times.

9. Risks or Discomforts:
There are no anticipated risks associated with participating in this research.

10. Direct Benefits:
There are no direct benefits participants will receive by participating in this study. A potential benefit of participation in this study is the expansion of the knowledge base regarding the integration of technology. There will be no financial compensation for participating in this interview.

11. Remuneration:
There is no remuneration of any kind for participating in this study.

12. Compensation:
There is no risk associated with this research. Therefore, no compensation is required.
13. **Alternate Procedures:**
The only alternate procedure that may benefit the subject would be to conduct the interview in a different location other than her/his office, but this would only occur if the subject desires and requests this.

14. **Contact Information:**
Scott Curcio is the principal researcher. He can be reached through Seton Hall University’s Department of Education Leadership, Management and Policy via phone at (973) 761-9397.

Dr. Anthony Colella is the researcher’s faculty advisor. Dr. Colella can be reached via phone at (973) 761-9389 and via e-mail at anthony.colella@shu.edu.

Seton Hall University’s IRB office contact information is as follows. This office may be contacted for answers to pertinent questions about the research and research subject's rights:
Mary F. Ruzicka, Ph.D.
Professor
(973) 313-6314
(973) 275-2361 (fax)
irb@shu.edu

15. **Permission to use Audio Tape Recorder:**
**By signing below #16, I give my permission for this audio taping to occur.**
Audio tape recording equipment will be used during the 30-45 minute interview, which will allow the researcher to transcribe and analyze the data post-interview. In order to ensure confidentiality, the participant will be identified by the assigned pseudonym. Participants have the right to review any portion of the taped recordings, and may request that a desired portion be destroyed. Only the researcher will have access to the tapes, and only the researcher will listen to the tapes. The tapes will be stored in a secured, locked safe. The researcher will transcribe the tapes, and these written transcripts will be stored on a USB memory card. These transcripts will also be stored in a secured, locked safe. All data will be destroyed after the required three years following the termination of the research.
16. Acknowledgement of Informed Consent Forms:
I have read the material above, and agree to participate in the study. I am aware that I will be given a copy of the signed and dated Informed Consent Form for my files.

Printed Name

Date

Signature

** Consent to participate is indicated by returning the enclosed four (4) page form to the researcher. You will receive a copy of this signed and dated Informed Consent Form.**