Reimaged: The Emotionally Intelligent Instructional Technology Leader

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Dedication

this is for my mom who planted in me an unquenchable thirst to grow

this is for my dad who never made it to any graduation and missed every show

this is for my sister, miracle, whose freedom is buried but hands sprout art

this is for therasse, hazima, keith, demetrius-my siblings, all wildflowers at heart

this is for my seedlings who have blossomed into beautiful rays of sunshine

sydney, skyler, raymond…i am honored and humbled to call you children of mine

this is for the trials, the tests, the tribulations, and the many unrelenting storms

this is for my God who said to me, “don’t worry, My child, I got this, continue on…”

this is for anyone feeling lost, confused, abandoned, hurt, rejected, disenchanted

be reminded, beloved, turn your face to the sun and grow where you are planted…

in all you do and all you are, **live love.**

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To each of you: thank you, thank you, **thank you**.

Abstract of Dissertation

Reimaged: The Emotionally Intelligent Instructional Technology Leader

For over forty years, researchers, policymakers, and educational leaders have promoted computer technology use within schools to enhance teaching and learning (Culp, Honey, & Mandinach, 2003; U.S. Department of Education, 2010). The effective schools literature of the 1980s suggested principals should be the instructional leader of the school building; however, school principals are often tasked with other administrative and managerial responsibilities diverting their attention from instructional technology (Lashway, 2002; Fullan 2014). Filling this gap requires a school leader who understands the importance of engaging learners with the technological advances of today's society. Partnering with the principal, the instructional technology leader can aid to improve the school's learning environment by influencing individual and institutional factors to support classroom technology use (Consortium for School Networking, 2009; International Society for Technology in Education, 2011). Unlike the role of the school principal, the instructional technology leader lacks authoritative power and instead relies on the ability to manage one's own emotions and attitudes as well as the emotions and attitudes of others (teachers), a process explored in emotional intelligence theory.

Using a blend of portraiture and narrative design methodology, this study explored the experiences of instructional technology leaders under the lens of emotional intelligence. The following question framed this study: How do instructional technology leaders perceive their own emotional intelligence (EI) and the role EI plays in the implementation and integration of instructional technology in the schools they serve?

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Chapter 1: Introduction

Prensky (2008) coined labels for two types of people that exist in our world today as it pertains to digital technology. The term digital native describes individuals who were born into a world in which digital technology is used daily (Prensky, 2010). These individuals have been exposed to digital technology throughout their entire lives. The term "digital immigrants" describes people who have watched the increase of the use of digital technology in everyday use (Koutropoulos, 2011, p. 525). Conversely, "digital immigrants" are people who lived in a world in which there was little to no use of digital technology and have watched the gradual increase of a digitally dependent and connected global community (Koutropoulos, 2011, p. 525). This digital technology dichotomy is present in education, and school leaders must be equipped to shape and influence the innovative uses of technology to further the progress of educational environments: "If we teach today as we taught yesterday we rob our children of tomorrow" (Dewey, 1916, p. 167).

Statement of the Problem

Though the effective schools literature of the 1980s suggested principals should be the instructional leader of the school building, principals are tasked with other administrative and managerial responsibilities diverting their attention away from the role (Daresh, 2006; Lashway, 2002). Among the principal's many roles is to serve as a leader in the instructional technology practices within the school building, spearheading efforts to influence widespread use of instructional technology throughout instruction and student application (Abrego & Pankake, 2010; Garland, 2009). Garland (2009) contends the school principal's role with instructional technology is ensuring ethical, social, and

legal technology use while promoting the use of advanced technologies in instruction, advocating for equity and access to new technologies in their schools, with an awareness of student diversity in race, language, exceptionalities, and gender; however, despite best efforts, the school principal's many roles and functions often prevent the principal from being able to assume the day-to-day task of influencing the integration and implementation of instructional technology and innovation within the school. Partnering with the principal, the instructional technology leader can transform and enhance the learning environment of any school by bridging a gap between the principal's vision for the school's implementation of technology and the school's application of that vision (Christensen, 2018; Culp, Honey, & Mandinach, 2003; Langram, 2010).

French, Raven, and Cartwright (1959, p. 263) described six bases of power: legitimate, reward, coercive, information, expert, and referent. Legitimate power comes from the belief that a person has the formal right to make demands, and to expect others to be compliant and obedient. Reward power results from the ability to compensate another for compliance. Coercive power holds the belief that others can be punished or given negative consequences for non-compliance. Informational power centers on a person's ability to control the information others need to accomplish something. The traditional school principal's role inherently has legitimate, reward, and coercive power; while non-traditional school leadership positions like the instructional technology leader do not. Expert power is based on a person's high levels of skill and knowledge. Referent power is the result of a person's perceived attractiveness, worthiness and right to another's respect. Wherein the role of instructional technology leader often lacks the authoritative power that most traditional educational leadership positions like the school

principal holds, the instructional technology leader must harness personal power domains such as referent power and expert power to influence technology integration and implementation in the school setting (Frasier & Bailey, 2004; Langram, 2010).

In addition to the referent and expert power that an instructional technology leader should wield, the instructional technology leader must rely on the ability to form relationships and establish trust to persuade educators to embrace technology and implement it in their curricular practices (Frasier & Bailey, 2004). While literature is available on the responsibilities and tasks embedded in the instructional technology leadership role, there is currently very little literature available that describes how instructional technology leaders develop relationships with the faculty and staff members they serve to influence effective instructional technology integration (Langram, 2010; Masullo, 2017). Emotional intelligence may be the missing link that explains how instructional technology leaders can harness a different source of power that is noncoercive to influence effective technology integration in schools.

Emotional intelligence (EI) is the ability of individuals to recognize their own, and other people's emotions, to use emotional information to guide thinking and behavior, and to manage emotions to influence environments or achieve goals (Coleman, 2008). Emotional intelligence has been recognized as a factor in success with both building relationships and enhancing leadership (Coleman, 2008). Exploring the nuances of emotional intelligence in the role of instructional technology leaders could lead to a better understanding of how individuals in educational leadership roles that traditionally lack authoritative power both harness and utilize personal power to influence positive change in the school environments they serve.

Defining the Instructional Technology Leader Role

Leadership is the most important factor in effective school-wide change (Stronge, Richard, & Catano, 2008). With regard to implementing school-wide change in instructional technology, defining best practice for school leadership remains an important key in enhancing the school technology integration (Fletcher, 2009, Gosmire & Grady, 2007; Masullo, 2017). The instructional technology leadership role (with various titles and descriptions) is one that has emerged and morphed in the last four decades (Barbour, 1986; Masullo, 2017; Moursund, 1985). Various case studies (Christensen, 2018; Langran, 2010; Marcovitz, 1998; Masullo, 2017; Moallen & Micallef, 1997; Strudler, 1995-96, Strudler & Gall, 1988) have provided rich descriptions of the work that school technology leaders perform; however, studies revealed that regarding the instructional computer coordinator position (and similar roles), the job description and title (if any) varied greatly from school to school and from district to district. Further, at its inception the majority of those tasked with the role of coordinating technology in their schools did not hold an actual title nor were they released fully from other school responsibilities (80% fulfilled their role as an additional responsibility) (Barbour, 1986). Today, in most schools, the instructional technology leader's title varies from district to district; however, the role often holds informal leadership responsibilities (training, supporting, coaching, etc.) as a primary function of the role (Fraizer & Bailey, 2004; Masullo, 2017). One such example can be found in the Virginia Department of Education's *Instructional Technology Resource Teacher and Technology Support Positions: A Handbook for School Divisions* published in 2008 (see Appendix A).

The instructional technology leadership role discussed in the 1980s consisted of three areas of importance: walk around support (visiting classrooms to determine areas of needs), nuts and bolts support (technical support), and the computer coordinator as a policy maker for the school or district (Marcovitz, 1998). Marcovitz (1998) observed the

various aspects of support provided by a school computer coordinator and found the role was multi-faceted, including responsibilities as a technician, trainer, curriculum consultant, curriculum designer, and policy-maker. Over a decade later, Sugar and Holloman (2009) also analyzed this crucial role by proposing four main responsibilities of a technology coordinator: (1) Instruction, (2) Technical, (3) Analysis, and (4) Leadership (p. 70). Indeed, the instructional technology leader is one that encompasses several responsibilities ensuring that schools implement technology for positive change in a school. The instructional technology leadership role is now known by a variety of titles: instructional technology coordinator, instructional technology resource teacher (ITRT), instructional technology specialist, technology coach, etc. (Marcovitz, 1998; Masullo, 2017). The responsibilities of the role, though, continue to include the same three areas of focus identified by Marcovitz (1998): walk around support, nuts and bolts support, and policymaker. The policymaker responsibilities mentioned here actually does not refer to the type of policy drafted by governing boards such as a district's school board; rather, the policy discussed here refers to instructional technology related procedures and protocols for a school or school system (such as when and how to report damaged technological equipment, when and how to properly perform updates to computers, etc.).

While the instructional technology leader role varies in title and job description from one school district to the next; today, this role is generally one in which the person holding the position is fully released from the classroom to perform tasks related to implementing instructional technology for one or more schools within a school district (Barnstein, DeMary & Neugent 2005; Fraizer & Bailey, 2004; Hooker, 2006; Marcovitz, 1998; Masullo, 2017; Neugent 2007; Sugar & Holloman, 2009). The school principal is charged with tending to the legal, ethical, and social instructional technology needs of the school building. When partnered with the principal, the instructional technology leadership role has the potential to drive positive school change. This school change is a

direct result of school leaders being able to actively influencing the successful implementation of instructional technology innovation through expert power, referent power, and the ability to use emotional awareness and intelligence to make connections with classroom teachers and students (Culp, Honey, & Mandinach, 2003; Fraizer & Bailey, 2004; Langram, 2010; Masullo, 2017).

Research Question

Using a blend of portraiture and narrative design methodology, this study explored the experiences of instructional technology leaders under the lens of emotional intelligence. The following question framed this study: How do instructional technology leaders perceive their own emotional intelligence (EI) and the role EI plays in the implementation and integration of instructional technology in the schools they serve?

Significance of the Study

The study of instructional technology school leaders is critical in assessing the effectiveness of and informing best practices for the instructional technology leadership role (Anderson & Dexter, 2005; Dexter, 2011; Masullo, 2017). Exploring the emotional intelligence and perceptions of instructional technology leaders is valuable to informing the leadership practices and policies of 21st century K-12 schools facing continued growth and expansion of digital technological advances. The International Society for Technology in Education (ISTE) contends "In a world where rapid advances in technology have a profound impact on the ways we work, communicate and live, education has struggled to keep pace…As educators, we are preparing students for a future that we cannot yet imagine" (ISTE Standards, 2017). See Appendix B. Studying educational leaders charged with directly influencing the implementation and integration

of technology in K12 learning environments is essential to the future of schools everywhere (Anderson & Dexter, 2005; Masullo, 2017).

This study addressed the body of knowledge informing the practice of informal leadership roles that carry influential power as opposed to authoritative power. The instructional technology leader complements the building principal's leadership with ethical, legal, and social technology matters by facilitating and supporting effective instructional technology integration with teachers and students, rather than mandating and enforcing change. Principals and administrative directors are not always aware of teacher challenges and needs, and so they may not be equipped to provide adequate instructional technology support (Masullo, 2017; Mundy & Kupczynski, 2013). This study addressed the experiences of the technology leader through the lens of emotional intelligence. Studying the experiences of informal educational leaders, who lead without traditional authoritative and administrative power, and using emotional intelligence as a framework for such leadership provided an understanding of leadership practices that harness the power of influence rather than the power of imposition.

Ontological and Epistemological Origin

Knowledge and reality are relative to each individual. Under the paradigms of subjectivist and constructivist theory, research should reflect this truth: any given experience inherently has multiple interpretations valuable to understanding that experience because reality is constructed through reflexive relationships between human beings and their experiences. Quality research allows opportunities for multiple interpretations to be shared to give a comprehensive picture of the subject studied. The

subjective ontological and epistemological lenses both inspired and guided the conceptual framework and methodology of this study.

Theoretical Framework

The primary focus of a leader is to influence and direct those who work with them or for them towards a certain goal developed by or for the organizational group (Northouse, 2010). Understanding the needs of individuals within an organization can help leaders more effectively influence mobility towards the organizational goals of growth and/or change. There are three leadership theories that can be applied to the constantly shifting instructional technology leadership role: Adaptive Leadership, Authentic Leadership, and Primal Leadership.

Adaptive Leadership theory (Heifetz & Linsky, 2002), is about individuals and organizations adapting and thriving in challenging environments by embracing the process of change through determining the essential from the expendable, determining the difference between technical change (for clearly defined problems with solutions) and adaptive change (for problems that require change in belief systems and ideologies). While Adaptive Leadership theory provides an excellent framework for what instructional technology leaders should work to be able to do, Authentic Leadership theory (George, 2003) provides an enlightening framework for how instructional technology leaders should work to become. Leadership must encompass more than actions; it must also embody the essence of who we are, what we believe, and how we operate to influence growth within an organization.

Authentic Leadership theory (George, 2003) is about leaders discovering who they are and understanding how their character and their ability to cultivate their

characters can greatly impact their work as leaders and the organizations they serve. Before one can learn to facilitate and apply Adaptive Leadership, it is imperative that the leader knows who he or she is and can use his or her influential power in a way that promotes positive systems of belief and relationships within the organization.

The intriguing Primal Leadership theory "…makes a case for emotionally attuned leaders and why they bring out more in their employees than commanding and pace-setting leaders" (Goleman, Boyatkis, & McKee, 2002). Primal Leadership theory taps into the core of the purpose of this study. It is a framework for leaders that operate outside of the desire to or, in the case of the general instructional technology leadership role, the ability to command action from employees or other organizational members. Primal Leadership theory contends that leadership is best enacted when the leader is not only in tuned with his or her own emotions and can adjust his or her character to meet the needs of the situation (as in authentic leadership) but is also able to assess and adapt for environmental changes (as in adaptive leadership theory). Primal Leadership theory marries the ideas that shape Authentic Leadership theory and Adaptive Leadership theory by employing the importance of a leader being emotionally intelligent. Emotional intelligence is defined as the ability to supervise one's own and other people's emotions, to judge different emotions and categorize them properly and to use emotional information to direct thoughts and actions (Coleman, 2008). Primal Leadership theory suggests that emotional intelligence is the key skill behind effective leadership.

Conceptual Framework

The relationship between the three aforementioned theories and how they connect to emotional intelligence is illustrated in the figure "The AAP Conceptual Framework."

AAP stands for Adaptive (Leadership), Authentic (Leadership), and Primal (Leadership). Leaders who naturally lead from the AAP Conceptual Framework are those who must work outside of the traditional modes of leadership, power, and authority. Such leaders gracefully operate as primal leaders who are able to be adaptive to the needs of the organization and its members as well as be authentic who they are as leaders. The foundation of AAP leadership rests in the expert, information, and referent bases of power. The AAP Conceptual Framework addresses the leadership modality of informal or non-traditional educational leadership roles that lack the coercive, legitimate, and reward power bases and are fueled by information, referent and expert power bases. For non-traditional leaders that lack authoritative stances, similarly to the Apple trademark slogan, there's an AAP for that. The AAP Conceptual Framework may be essential for the instructional technology leadership role in addressing how this group of leaders can be effective without the use of authoritative power.

The AAP Conceptual Framework

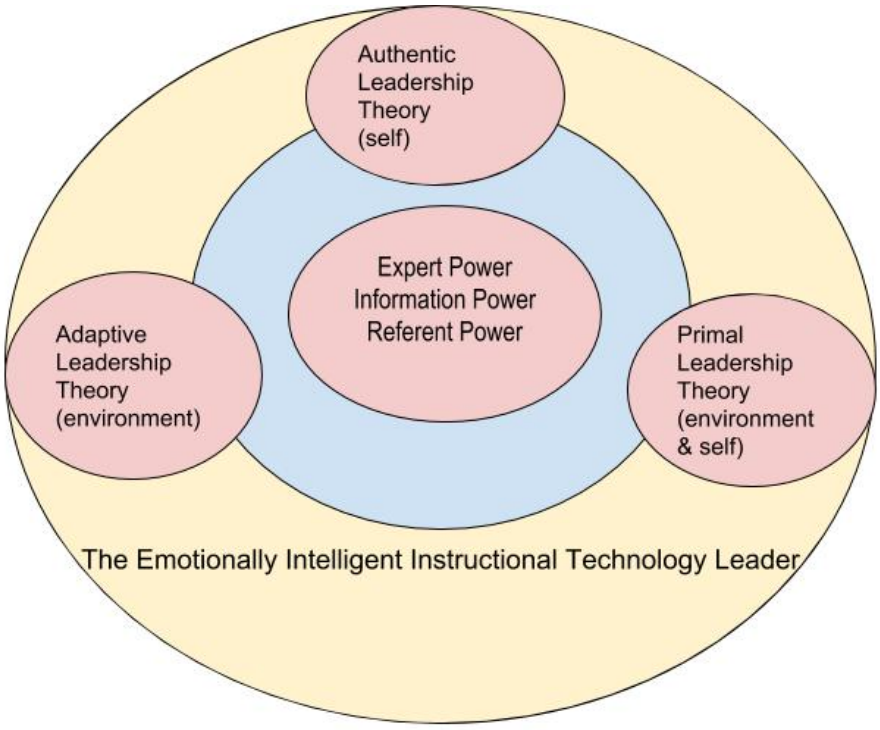

Figure 1. The AAP Conceptual Framework. This figure explains the relationship between Adaptive Leadership theory, Authentic Leadership theory, and Primal Leadership theory and how they work together to inform the Emotionally Intelligent Instructional Technology Leader.

Adaptive Leadership requires an awareness of the organizational environment and climate and a keen ability to adjust to meet the needs of the environment. Authentic Leadership requires an awareness of self and the ability to utilize an ethical foundation to build honest relationships based on being genuine. Primal Leadership requires both self-awareness and the ability to adapt to the organizational environmental needs. To be able to do both, emotional intelligence is key. Emotional intelligence are those skills defined as necessary in assessing the feelings of one's self and those of others, as well as understanding how to utilize those skills to affect positive change. Primal leadership and

emotional intelligence are related in that primal leadership requires strong emotional intelligence (Goleman, 2002). Emotional intelligence is the skill that primal leaders possess that set them apart from dissonant leaders. Goleman (2002) posits that successful leaders are emotionally attuned to employees and organizational members.

Instructional technology leaders have much to gain by exploring their emotional intelligence and the ways that doing so can enhance their leadership capacities. The instructional technology leader serves a variety of educational leaders, educators, and students and so the role requires expertise in educational technology, skills in effectively developing relationships, and utilizing change agency to influence the environment (Anderson & Dexter, 2005; Masullo, 2017; Sugar & Holloman, 2009). Such a role requires a leadership style that is primal, adaptive, and authentic. Such a role has to be one that considers both the goal of integrating technology in the school as well as the factors that may prohibit successful integration such as classroom teachers' gaps in understanding, need for instructional feedback, and attitudes about technology (Dexter, 2011; Ramirez, 2011; Masullo, 2017). This study aims to explore the emotional intelligence and the experiences of instructional technology leaders as they influence instructional technology in the schools they serve. A more in depth exploration of emotional intelligence and instructional technology leadership is provided in Chapter 2.

Summary of Methodology

This was a qualitative study exploring the experiences of instructional technology leaders under the lens of emotional intelligence through a blend of portraiture and narrative design methodology. The study unveiled self-perceptions from instructional technology leaders of the role emotional intelligence plays in building relationships that

successfully impact classroom teachers' implementation and integration of instructional technology. This study uncovered the unique experiences of instructional technology leaders as they navigate building relationships and trust with classroom teachers in the buildings in which, without any authoritative power, they are responsible for leading the implementation and integration of technology in instruction.

Merriam (2009) suggested purposive sampling, reminding researchers that qualitative research is not as concerned with quantity of responses, but rather the quality of responses. Patton (1990) suggested selecting "information rich" cases to study in depth. Guest et al., (2006) suggested that qualitative research likely reaches saturation of ideas with a homogenous participant pool of 12; however, Fusch and Ness (p. 1408, 2015) argued that "there is no one size fits all" as it pertains to reaching saturation in qualitative studies. Although determining a range for the participant pool size can be challenging, especially in a qualitative study, Sauro (2015) posits there are five categories of qualitative design and they each exhibit the following specific characteristics: ethnography focuses on culture and context (no recommended sample size), narrative focus on individual experience and sequence (recommended sample size of 1 to 2), phenomenology focuses on people who have experienced a shared phenomenon (recommended sample size of 5 to 25), grounded theory focuses on a developing a theory from field data (recommended sample size of 20 to 60), and case study focuses on a singular organization, entity, individual, or event (no recommended sample size). As it pertains to this study, a narrative approach is the best fit because it encourages opportunities to unearth stories that may illuminate the process instructional technology

leaders undergo while building relationships with teachers to increase the school's engagement with educational technology.

Because this study was about gathering the narratives of instructional technology leaders to produce research portraits of participants, it was important to select robust cases that would yield in depth stories of the experience studied. Thus, this study was conducted with a group of three instructional technology leaders. Participants were instructional technology leaders from a large Southeastern state in the United States who have served as fully released instructional technology leaders. Information about the study was sent to any organization within the state whose membership is primarily comprised of instructional technology leaders. The participant pool had several variants: years of teaching experience, years of instructional technology leadership experience, type of school supported (elementary, middle, or high), type of school district (rural, urban, suburban), gender, and racial background.

Participating instructional technology leaders were asked to participate in an interview in which they would take an emotional intelligence assessment (TEIQue-SF) to collect their perceptions of their emotional intelligence and participate in an interview concerning their beliefs about implementing and integrating technology in the schools they serve. All data would be used to construct distinct portraits of instructional technology leaders' experiences in implementing the integration of instructional technology. Participation in the study was voluntary.

Several limitations exist with this research study. Because I, as the researcher, am an instructional technology leader, this might create opportunities for bias or lack of genuine or authentic participant responses. As an instructional technology leader located

in the same state as the participants in this study, my familiarity with the participants may have also created opportunities for additional bias. To address this potential biases, a subjectivity statement was written prior to data collection so all areas of potential bias were adequately addressed and disclosed. At least one analytic memo was also written to capture what I learned during each interview with and observations of participants.

To protect the identity of all participants, I gave both participants and their school placements pseudonyms. Additionally, all interviews and observations were recorded and transcribed. Interview transcriptions were member checked before being included in the study, thus creating an interpretive community in which the participants were involved in the construction and maintenance of the meaning for captured data (Fish, 1980). Interview recordings and transcripts are securely stored for seven years, and will then be destroyed.

Consideration was given to expanding the study to include all instructional technology leaders across several states; however, increasing the sample size will not fit with the methodological needs of a qualitative study, which emphasizes the importance of capturing the quality and depth of findings to a point of saturation in a smaller group rather than the findings of a larger quantity of participants. My professional connections as an instructional technology leader provided access to a variety of organizations whose members would fit the scope of my research. The basic qualitative design was intended to give a small, introspective look at the experiences studied.

To strengthen credibility, transferability, and dependability, triangulation of method was used (interviews and photographed artifacts). Data collected were coded and analyzed. Then, the analysis was member checked. A more detailed description of the

research methodology is presented in Chapter 3. Copies of the instruments and interview protocols used in this study are available in the Appendices of this document.

Definitions of Key Terms

For the purpose of this study key terms relevant to this study are defined:

- **Digital citizenship** is defined as the understanding of social, ethical and legal issues and responsibilities related to an evolving digital culture (ISTE, 2009).
- **Digital immigrant** is defined as one who has grown up without using or having technology and later moved into a technology rich world later on in life (Prensky, 2010).
- **Digital native.** A digital native is defined as an individual who has grown up immersed in technology. Digital natives use technology to explore the globe daily (Prensky, 2010).
- **Emotional Intelligence (EI).** Emotional intelligence can be defined as the ability to supervise one's own and other people's emotions, to judge different emotions and categorize them properly and to use emotional information to direct thoughts and actions (Coleman, 2008).
- **Instructional technology leader.** An educational leader often refers to the building principal in the K-12 school environment. For the purpose of this study, the instructional technology leader is a term used to describe the role of an individual who is assigned to at least one school building and supports educators and educational leaders within a school building with influencing, implementing, and integrating instructional technology in the learning environment. The instructional technology leader term is used interchangeably with technology

coach, instructional technology resource teacher (ITRT), computer technology coordinator, instructional technology coordinator, and a variety of other titles that encompass the aforementioned role.

- **International Society of Technology Education (ISTE) Standards.** The standards that provide global guidance to general teachers, computer science teachers, students, administration (educational leaders), and coaches (instructional technology leaders), to effectively support, promote, and integrate technology in schools (ISTE, 2009; ISTE 2011).
- **Instructional technology integration and implementation.** ISTE standards were developed to provide a guide of best practices for students, teachers, technology leaders (coaches), and administrators in implementing and integrating technology in learning environments. Thus, for the purpose of this study, defining the integration and implementation of instructional technology is guided by the six ISTE standards developed for technology leaders/coaches: (1) Visionary leadership, (2) Teaching, learning and assessments, (3) Digital age learning environments, (4) Professional development and program implementation, (5) Digital citizenship, and (6) Content knowledge and professional growth. A full list of the standard for technology coaches with subcategories are available in Appendix A; however, summaries of the six ISTE standards for instructional technology leadership are referenced below:
    - Visionary leadership: Inspire and participate in the development and implementation of shared vision for the comprehensive integration of technology in the school.

- Teaching, learning, and assessments: Assist teachers by coaching and modeling effective technology use in assessing student learning, differentiating instruction, and providing rigorous and relevant learning experiences for all students.
- Digital age learning environments: Collaborate with teachers and administrators to select and evaluate digital tools for online and blended learning environments as well as model effective classroom management and learning strategies to support technology-rich school climates.
- Professional development and program evaluation: Conduct school needs assessments, develops technology related professional development programs, and evaluates its impact on instructional practice and student learning.
- Digital citizenship: Models and promotes digital citizenship.
- Content knowledge and professional growth: Demonstrates professional knowledge, skills, and dispositions, and engages in continual learning to deepen that knowledge.

Summary

Schools must be able to offer more engaging and collaborative technologies for students and staff; however, school building principals are often charged with the legal, ethical, and social elements of leading technology in the building leaving a gap in the day to day implementation of effective instructional technology within the school. Instructional technology leaders fill this gap by influencing and facilitating technology integration with teachers and students. School leaders, though, possess authoritative

power while the instructional technology leadership role traditionally holds no authoritative power; thus, the instructional technology leader must rely on leadership capabilities that harness expert power, referent power, and emotional intelligence. The purpose of this study is to, through the lens of emotional intelligence, explore the experience of instructional technology leaders as they work to influence the implementation and integration of technology in their schools.

This qualitative research gathered the experiences from instructional technology leaders in a large diverse school district in the Southeastern United States. Prior to participating in a recorded observation and follow up interview, participants took an emotional intelligence test. Data were analyzed using components of emotional intelligence (Boyatzis, Goleman, & McKee, 2005).

The research results provided unique portraits capable of informing school leaders, especially instructional technology leaders, about best practices in influencing the effective implementation and integration of technology in schools to engage today's growing population of digital natives and their learning environments without the use of authoritative power.

Chapter 2: Literature Review

As digital technology grows more prevalent throughout the world and placed in the classrooms of our youngest generations, school leaders must be equipped to navigate technology use and innovation to further the progress of education (Lamb & Weiner, 2018; Masullo, 2017; Raths, 2013; Skophammer & Reed, 2014). The traditional school leader has been the building principal; however, with the growing demands on the building principal position, it is imperative that additional leadership roles are utilized to support the many aims of the 21st century school environment (Fullan, 2014; Lashway, 2012; Pierce & Cleary, 2014; Spillane & Lee, 2014). One such role is that of the instructional technology leader, one who functions as a coordinator and manager of the use of instructional technology within a school building (Masullo, 2017). This instructional technology leadership position can be challenging in that in most cases, the title lacks the authority that the traditional school leader position holds; thus, the instructional technology leader often relies on building trust and relationships with faculty and staff, skills that are grounded in emotional capabilities and understandings. This study was about exploring the emotional dynamics that support the leadership functionality of the instructional technology leader because "Our world is a new world, and it requires a new kind of leadership," (Boyatzis & McKee, 2005, p. 1).

The focus of this chapter is literature related to the instructional technology leadership role, emotional intelligence (EI), and its application to educational and instructional technology leadership in K-12 schools. The three topics explored in this critical literature review are as follows: instructional technology leadership, EI leadership theory, and EI theory's application to educational and instructional technology

leadership in influencing and implementing technology integration in schools. This collective and comprehensive review of the literature relevant to the aforementioned research topic provides a foundation for the study.

Methodology of Research

Research articles pertaining to instructional technology leadership written after (No Child Left Behind [NCLB], 2001) were most useful to the study because NCLB marked a pivotal point in which technology would become a factor in public education policy throughout the United States. The implementation of NCLB (2001) did not require schools to develop technology standards; however, it encouraged states to integrate technology throughout all its academic domains with the Enhancing Education through Technology program implemented in each state (Knezek & Rublyer, 2003). NCLB (2001) required states to develop standards of teaching and assess students on their learning to hold schools accountable for the academic progress of their students, including the area of technology. States turned to the International Society for Technology in Education (ISTE) for direction in instructional technology. In 1998, ISTE developed the National Educational Technology Standards for Students (NETS-S). In 2002, ISTE developed NETS for Teachers (NETS-T) with the belief that if students were going to have technology skills, they would need teachers who themselves were proficient with technology (Knezek & Rublyer, 2003). Still, it was NCLB (2001) that was a catalyst for prioritizing instructional technology within K-12 schools in the United States. Consequently, the focus of the research from the beginning era of NCLB (2001) to present was to encapsulate the parameters of the nuances of instructional technology in public education within the United States as perceived today. It is important to note,

though, that because emotional intelligence leadership theory is a framework that first surfaced in the 1950s, some of the literature used in this study as it pertains to emotional intelligence (EI) leadership theory will be dated prior to NCLB (2001).

With these parameters in mind, this is a review of literature that used five sets of key terms (described in the paragraphs that follow) and the following databases and academic libraries during the search for literature through the Gelman Library at The George Washington University: Academic Search Complete, ERIC, EBSCO, PsychArticles.

The first key term used was "emotional intelligence and educational leadership" and it yielded 131 peer reviewed articles and studies that dated as early as 1994 to the present. The search was narrowed to fit the parameters of NCLB (2001), yielding 47 peer reviewed, full text articles dating from 2001 to present; however, initially, only 12 were relevant to this study (Doe, Ndinguri, & Phipps, 2015; Gray, 2009; Johnson, Aiken, Steggerda, 2015; Mayer & Cobb, 2000; Mills, McDowelle, & Rouse, 2010; Moore, 2009; Potter, 2011; Prensky, 2013; Russell, 2008; Stephens & Hermond, 2009; Wells, 2015). Later, additional articles were discovered and added to this document. Articles pertaining to the emotional intelligence of classroom teachers, emotional intelligence of students, emotional intelligence for school leaders and programs outside of the United States, and emotional intelligence for university level administrators and professors were considered outside the scope of this research and were not included in this study. It is important to exclude literature about leadership roles that do not align with K-12 instructional technology leadership because the career specific needs and behaviors of the K-12

instructional technology leader are often incongruent with university level and traditional K-12 school leadership roles.

The second key term was "emotional intelligence and instructional technology leadership" and it yielded zero results. When the word "leadership" was removed, the database yielded five peer reviewed results, and they each pertained to the emotional intelligence of children, which is outside the scope of this study. The lack of results indicates that although there were many studies addressing the connection between emotional intelligence and educational leadership; there remains a gap in the literature regarding the application of emotional intelligence to the role of instructional technology resource teachers as educational leaders. This research study aims to address this gap.

To identify the nuances of emotional intelligence, the third key term, "emotional intelligence", was used and yielded over 6500 results. To narrow the search to meet the needs of this study, the term "overview" was added to the term "emotional intelligence", yielding 75 peer reviewed results dating from 1953. "Emotional intelligence overview" proved to be a more fitting key term because it narrowed the results to articles that could provide a larger historical and conceptual context of the theoretical framework used for this study. Studies relating only to the historical and theoretical overview of emotional intelligence theory were selected to further inform this study (Bar-On, 2005; Brackett, Rivers, & Solovey, 2011; Mayer & Salovey, 1997; Mayer & Cobb, 2000; Muir, 2006; Salovey & Grewall, 2005). Articles that pertained to the health profession and/or organizations outside of the United States were considered outside the scope of this research and were not included in this study. References provided in the selected articles were used to further inform this literature review.

To identify the nuances of instructional technology, the fourth key term, "instructional technology", was used and yielded over 8900 results. To narrow the search to meet the needs of this study, the term "K-12 education" was added to the term "instructional technology", yielding 62 peer reviewed results dating from 2001. The huge amount of results that were eliminated as a result of the term "K-12" education is indicative of the importance of instructional technology specifically for the K-12 setting. Of the 62 documents, results were further narrowed to reflect only the studies pertaining to defining instructional technology and its impact on K-12 teaching and learning (Basham, Smith, Greer, & Marino, 2013; Delgado, Wardlow, McKnight, & O'Malley, 2015; Franklin, 2008; Raths, 2013; Sang, Holmes, & Mims, 2005; Skophammer & Reed, 2014; Pierce & Cleary, 2014).

The fifth and final set of key terms, "instructional technology leadership" and "role", were used to capture information regarding the core tasks and functions of this leadership position, and the search yielded 23 peer reviewed, full text articles from the era of NCLB (2001) to present; however, only three were relevant to this study (Lesisko & Place, 2005; Lesisko & Wright, 2007; Lewis, 2016;). Articles that did not pertain to the role of K-12 school leaders who led technology implementation as a primary function were considered outside the scope of this research; however, a brief summary of the general findings in those articles are provided in this chapter. References provided by the selected articles were also used to inform this literature review.

The increased use of digital technology in our society requires our schools to become adequately prepared and ahead of the curve in innovative instructional technology use. Instructional technology leaders play a critical role in influencing the

stakeholders in a school to embrace instructional technology and capitalize on its uses for the benefit of students. Unlike traditional school leaders, instructional technology leaders often do not share the same level of authority as school principals. Therefore, the instructional technology leader must work to influence a school to utilize instructional technology with persuasion and relationship building, skills that rely on emotional awareness. Examining how instructional technology leaders exact change in their roles is paramount to ensuring schools produce leaders capable of forging forward progress for schools today and tomorrow; however, the search results for both instructional technology leader and the application of emotional intelligence to the role of the instructional technology leader yielded so few results, there appears a gap in the literature regarding not only the application of emotional intelligence to instructional technology leadership, but also the role of the instructional technology leader itself. As schools become more dependent upon digital resources (online assessments, digital curriculum, social media presence, etc.), it is imperative that schools are equipped with leaders adept in the field of instructional technology. Despite steady advances in instructional technology and a growing body of literature regarding instructional technology, there is a gap in the research regarding how K-12 instructional technology leaders influence effective technology integration in schools despite holding little to no authoritative power. It is critical that this growing field of educational leadership is studied to inform and improve the role of the instructional technology leader and similar informal leadership positions in education.

Problem: Informing the Role of the Instructional Technology Leader

Today's students are digital natives, born into a world engaged by multimedia and exchanges powered and enhanced by technology (Gunn & Hollinsworth, 2010; Lamb & Weiner, 2018; Prensky, 2010; Prensky, 2013; Saltinski, 2015). To prepare students for their world's tomorrows, educators must be able to anticipate future technological advances by demonstrating proficiency in instructional technology and providing opportunities for their students to use and develop innovative technological ideas (Berrett, Murphy, and Sullivan, 2012; Deresh, 2006; Mullen, 2010 Schrum, Galizio, and Ledesma, 2011). The expectation to shift education to support the growing academic and technological needs of the 21st century calls for high expectations of educators and educational leaders, and at the same time, some states and institutions do not require formal preparation of its educational leaders for performing such tasks (Schrum, Galizio, & Ledesma, 2011).

School leaders, such as building principals, are tasked with ensuring instructional technology is not only available for student and teacher use, but that there is also continued training and support in the use of such instructional technology (Lamb & Weiner, 2018; Masullo, 2017). School principals, though, have administrative and managerial tasks that interfere with the time required to influence and implement instructional technology effectively (Berrett, Murphy, and Sullivan, 2012; Deresh, 2006; Lashway, 2002; Mullen, 2010). Further, Dawson and Rakes (2003) contended that many principals were either uninformed or uninvolved in implementing technology efforts in their schools. Filling this gap requires both skill of and enthusiasm for influencing and implementing instructional technology in a K-12 setting.

At its inception, the role of the instructional technology leader emerged as the "instructional computer coordinator" during the 1980s along with the proliferation of computers in K-12 schools (Barbour, 1986; Moursund, 1985). Barbour (1986) asserted that the position of coordinating technology in schools often came without a title and those functioning in this position were not released fully from other school responsibilities with 80% of those responding to the survey fulfilling their role as an additional responsibility. In fact, the instructional technology leadership role in schools were known by a variety of names such as the ones used in studies reviewed in this document: instructional computer coordinator, technology resource teacher, instructional technology resource teacher, technology coordinator, technology director, etc. Like the job title, the job description also varied from school to school and from district to district—some of the positions were school based, others were district wide (Barbour, 1986; Marcovitz, 1998). The instructional computer coordinator role established in the 1980s had three areas of functionality: walk around support (visiting classrooms to determine areas of needs, on the spot training, etc.), nuts and bolts support (technical support), and the computer coordinator as a policy maker or influencer for the school or district (trainer, creator of coursework and curriculum).

Nearly three decades later, Zeller (2015) contended that an effective leader in instructional technology must be equipped with the following three sets of expertise: technical, administrative, and instructional. These three sets of expertise mirror the research of Barbour (1986) and Moursund (1985) in technical (bolts and support), policy maker (administrative), and instructional (walk around support). Still, even though today's technology leaders continue to have the same three areas of functionality, many more facets have been added to the role. Reinhart and Slowinski (2004) conducted a descriptive, exploratory case study of seven district and school technology coordinators. Interviews of each technology coordinator were approximately one-hour in length. Several days after the initial interview, Reinhart and Slowinski (2004) conducted a half-

day observation and a follow-up interview to clarify any ambiguities from the initial interview and to allow each technology coordinator a chance to expand on their initial responses. Their findings highlighted the role as being one that is a full time position and not as an adjunct responsibility to classroom teaching or other educational roles. They also identified the following themes for the instructional technology leader's role: the importance of professional development and communication skills, the importance of being well versed in technology and education, recognizing that the position can be stressful with navigating the various roles and responsibilities within the position and having the ability to prioritize tasks, having an office locale that is close to the buildings that are being supported is paramount, and being a visionary (Reinhart & Slowinski, 2004).

Various case studies (Marcovitz, 1998; Masullo, 2017; Moallen & Micallef, 1997; Strudler, 1995-96, Strudler & Gall, 1988; Webster, 2017) have provided rich descriptions of the work that technology coordinators perform. One longitudinal case study consisted of an initial investigation (Strudler & Gall, 1988) and a follow-up (Strudler, 1995-96) discussed the strategies and skills of three coordinators over an eight-year period. Results across both case studies suggest that even though the technology coordinators were able to eliminate many challenges for the teachers they served, several problems continued to exist: "…limited budget, teachers' lack of interest or time, too few computers in classrooms, and obsolete technology" (Strudler, 1995-96, p.7). Strudler (1995-96) suggested the possibility that technology coordinators tend to correct problems and reduce the need for their position. This finding is not congruent with the continuous growth of technology innovation; however, it highlights the nature of the technology leadership role as being personally connected and committed to correcting the problems of those served.

Moallen and Micallef (1997) assessed the progress and effectiveness of Technology Resource Teachers, or TRTs, and their roles and responsibilities as technical

and instructional support persons. The study also sought to identify the future roles of instructional technologists in public schools. Data collection methods included interviews with TRTs; classroom, computer lab and site observations; public and personal records, reports, and documents; and teacher questionnaires and attitude surveys. The study was conducted in six middle schools in the southeastern United States. Results indicated that the TRTs felt successful in establishing and maintaining a computer lab in the schools that they served, TRT support of teachers led to improved confidence for classroom teachers in their own computer skills and personal computer usage, and the teacher's positive perception of TRTs and their roles at the school were indicators of the TRTs progress in their efforts. The study also revealed that classroom teachers did not show any major improvement in their attitude toward or usage of computers in classroom instruction—despite receiving regular training and technical support. This study was conducted 20 years ago, and so it is important to continue studying this role, how it has emerged, and how to ensure that technology leaders capitalize on the supportive relationships that they build with classroom teachers in order to influence technology integration not only for the teacher's personal life, but in his or her professional career in the classroom.

Marcovitz (1998) spent one day shadowing a computer coordinator in an elementary school in the context of a larger qualitative, ethnographic study in which the various elements of support for technology at a Midwestern, American public K-5 school were observed for a little over one school year. Marcovitz's (1998) subject was a part-time instructional computer coordinator who worked at the school named Robert (pseudonym). Marcovitz (1998) found during his day of shadowing the instructional computer coordinator that the role was multi-faceted, including responsibilities as a technician, trainer, curriculum consultant, curriculum designer, and policy-maker; however, most of the role consisted of "nuts and bolts" support in which teachers relied on Robert's support to fix and troubleshoot computer difficulties.

A decade later, Sugar and Holloman (2009) analyzed the role of instructional technology leadership by proposing the following four main responsibilities of a technology coordinator: (1) Instruction; (2) Technical (combining walk around support with nuts and bolts support described by Marcovitz (1998)); (3) Analysis; and (4) Leadership (encompassing the policy making component suggested by Marcovitz (1998). The two new roles, instruction and analysis, may have been influenced by the work of Frazier and Bailey (2004) who are prominent authors in addressing the technology leadership role as being "a position without a protocol," one that encompasses a variety of tasks: instructing teachers on new technology; solving teachers' technical problems; providing access to existing technology resources; and collaborating with teachers to develop curricular materials for their classrooms.

More recently, Webster (2017) conducted a qualitative study using grounded theory methods to (a) explore K-12 technology leaders' philosophies and assumptions about instructional technology, (b) determine how those philosophies and assumptions potentially impact technology decision making, and (c) identify whether "technological determinist" assumptions were present. His work involved both technology directors and instructional technology specialists from school districts, and data collection included both interviews and a questionnaire. Webster (2017) found three philosophies of technology views widely held by participants: an instrumental view of technology, technological optimism, and a technological determinism which views technological change as inevitable. Webster (2017) posited that instructional technology leaders were guided by two main approaches to technology decision-making: "Educational goals and curriculum should drive technology," and "Keep up with Technology (or be left behind)."

Webster (2017) concluded that the latter was given more consideration in technology decision-making, and he suggested that because of this there remains the risk that this practice may result in adoption of technology for the sake of "keeping up" rather than aligning implementation of technology with the school's vision and goals.

Masullo (2017) asserted that the relationship between the instructional technology leader and the teachers that they work with is an important consideration in assessing the effectiveness of the instructional technology leader's work. Masullo (2017) contended that instructional technology leadership is informal leadership that should be supported by opinion leadership. Opinion leadership is qualified by the individual's proficiency and social accessibility, and the individual's ability to serve as a model for followers or organizational members (Rogers, 2003). Masullo (2017) argued that instructional technology leaders in their informal leadership should be able to work with and identify classroom teachers who have the potential to become opinion leaders that ultimately impact change within the school environment. Masullo (2017) studied 10 public elementary schools and approximately 10 teachers from each of the schools and the district technology coordinator for each of the 10 public schools. Masullo (2017) used the Technology Coordinator Survey, an Opinion Leadership Scale, and a Local Expert Profile (LEP) instrument. The Technology Coordinator Survey is a data collection instrument adapted from the Boston Society for Information Management and is a Likert-type scale with demographic questions pertaining to the technology leader's responsibilities and role as a change agent and factors that contribute to the leader's success. The Opinion Leadership Scale (2004) was modified from the Hiss, MacDonald, and Davis (1978) original and was used in this study to assess whether or not the leader

self identified as an opinion leader. The Rice (1994) LEP instrument is a self reporting instrument designed to identify those individuals who serve as local experts and was used to identify elementary classroom teachers as opinion leaders. Masullo (2017) found that the technology leaders in the study were able to identify opinion leaders within their schools on average of 70% of the time, but also overlooked potential leaders at their respective schools. The study addresses the impact of the relationships instructional technology leaders are able to build and develop with the classroom teachers. It is an extremely important link to understanding how an instructional technology leader is able to influence change within the school that he or she serves.

Still, instructional technology leadership remains a relatively untapped topic in scholarly research. Richardson, Bathon, Flora, and Lewis's (2013) review of the literature presents a content analysis of articles published from 1997 through 2010 housed in the Education Resource Information Center (ERIC) database on the topic of school technology leadership. Based on their content analysis, 37 articles contained some focus on technology leadership; however, there was a glaring lack of in-depth research. Nearly 68% of the articles were simply descriptive in nature and issues pertaining to systemic improvement and digital citizenship were least studied in the current literature. In the review of the literature researched in this study, the articles available were primarily descriptive of the work of instructional technology leaders, not necessarily analyzing how instructional leaders enact system wide change for instructional technology in schools. The purpose of this research study is to support the process of filling this gap by providing insight from instructional technology leaders on how they influence change in the absence of authoritative power by invoking personal powers of influence and emotional intelligence.

With respect to systemic change, the implementation of instructional technology in schools has been an elusive and challenging task. In the last two decades, school districts and statewide departments of education have developed handbooks for instructional technology leadership that outline the roles and responsibilities of the position and/or technology plans for schools to implement to aid schools and districts with envisioning the role of instructional technology (Hannafin, 2008; Neugent, 2007). An example from the Virginia Department of Education (Instructional Technology Resource Teacher: A Handbook for Teachers and Administrators) is included in Appendix E of this document. Indeed, there are promising developments to best practices in instructional technology leadership and implementation in schools.

Hannafin (2008) synthesized findings from a technology audit to evaluate technology use and integration in a moderate-sized suburban school district in a mid Atlantic state in the United States. Both survey and interview data were analyzed from administrators, teachers, students, and school board members. Even though the district had a detailed technology plan in place, only half of the teachers and an even smaller one third of administrator respondents had any knowledge the plan existed. Issues such as technology access, pressure to cover instructional content for statewide standardized testing, and a strained relationship between the Information Technology department for the district and members of school faculty emerged as barriers to effective instructional technology implementation (Hannafin, 2008).

Barnstein, DeMary and Neugent (2005) developed a handbook for Instructional Technology Resource Teachers outlining best practices for the role (see Appendix E). Barnstein et al. (2005) prescribed a set of qualifications that instructional technology leaders should possess: experience as a classroom teacher, knowledge with instructional technology, and relationship building skills. The document contains scenarios and

suggestions for the instructional technology leader to glean from in gaining the trust of reluctant teachers. In a follow up document, Neugent (2007) discussed the lack of research on instructional technology leaders and referred to research conducted in the dissertation studies of Hooker (2006) and Streich (2007) to support its assertions. Neugent (2007) recommended the following factors be considered to foster successful instructional technology leadership support: communication with faculty and staff, technology availability in school buildings, fiscal resources in school buildings and district wide, planning time made available for instructional technology leaders to work with teachers, supervision and evaluation, and program evaluation.

Similarly, Schrum and Levine (2013) presented lessons learned about promoting technology integration and its success within eight exemplary schools (five public schools, 1 charter school, 2 magnet schools) in California, Colorado, Maryland, Michigan, Minnesota, North Carolina, Virginia, and Washington. Through a qualitative investigation into school leaders' and teachers' intentional goals of improving student engagement and achievement, the researchers found distributed leadership at play in the initiatives that led to success. Data were collected based on over 150 interviews, 30 focus groups, 150 classroom observations and multiple documents to develop case studies. A cross-case analysis of these eight schools and district data were analyzed using constant comparative analysis method. Schrum and Levine (2013) found that the most effective models incorporated district wide, school based, formal and informal opportunities that accommodated preferences in both learning and delivery models.

The instructional technology leader position is an emerging role that varies from school to school and from district to district; however, it serves as an invaluable support in providing the necessary leadership for technology integration in the learning environment. The experiences of instructional technology leaders can inform the

leadership practices of a truly important arm of educational leadership for 21st century schools.

Theoretical Framework

Northouse (2010) argued that leaders must be equipped with the skills necessary to influence and direct followers towards a certain goal for the purpose of the whole group. The instructional technology leadership position, a non-traditional school leadership role, lacks the authority to mandate actions from members of the school organization. Therefore, having skills to effectively mobilize organizational members towards a common goal is essential for the instructional technology leader. There are three leadership theories that can be applied to the instructional technology leadership role: Adaptive Leadership, Authentic Leadership, and Primal Leadership. These three leadership theories are related to one another, and connected to a skill explored in this study: emotional intelligence.

Adaptive leadership theory (Heifetz & Linsky, 2002), addresses the ways in which individuals and organizations not only adapt to but also thrive in difficult environments. Adaptive Leadership contends that by leaders are most effective when they are able to embrace the process of change through determining the essential from the expendable, determining the difference between technical change (for clearly defined problems with solutions) and adaptive change (for problems that require change in belief systems and ideologies). While Adaptive Leadership theory provides an excellent framework for what instructional technology leaders should work to be able to do, Authentic Leadership theory (George, 2003) provides an enlightening framework for how

instructional technology leaders should work to become. Leadership theory must be able to inform action, but should also provide a framework for character.

Authentic Leadership theory (George, 2003) celebrates the importance of leaders knowing who they are and understanding how their character and their ability to cultivate their characters greatly impact their work as leaders and the organizations they serve. Authentic Leadership theory emphasizes that the leader must know who he or she is and must be able to use his or her influential power in a way that promotes positive systems of belief and relationships within the organization.

Primal Leadership theory "…makes a case for emotionally attuned leaders and why they bring out more in their employees than commanding and pace-setting leaders" (Goleman, Boyatkis, & McKee, 2002). It is a framework for leaders that operate outside of the desire to or, in the case of the general instructional technology leadership role, the ability to command action from employees or other organizational members. Primal Leadership theory contends that leadership is best enacted when the leader is not only in tuned with his or her own emotions and can adjust his or her character to meet the needs of the situation (as in authentic leadership) but it is also able to assess and adapt for environmental changes (as in adaptive leadership theory). Primal Leadership theory marries the ideas that shape authentic leadership theory and adaptive leadership theory by employing the importance of a leader being emotionally intelligent.

Emotional intelligence is defined as the ability to supervise one's own and other people's emotions, to judge different emotions and categorize them properly and to use emotional information to direct thoughts and actions (Coleman, 2008). Emotional Intelligence (EI) first appeared in 1964 by Davitz and Beldoch and in the 1966 paper by

Leuner entitled *Emotional intelligence and emancipation* which appeared in the psychotherapeutic journal: *Practice of child psychology and child psychiatry*. Twenty years later, Gardner (1983) published *Frames of Mind: The Theory of Multiple Intelligences* and introduced the concept that traditional types of intelligence lacked a complete scope of cognitive ability. Gardner's (1983) work included both *interpersonal intelligence* (the ability to understand and process the inward desires of other people) and *intrapersonal intelligence* (the ability to understand and process one's emotions and motivations). In 1987, Beasley used the term Emotional Quotient (EQ) in an article. Greenspan (1979), Salovey (1989), and Mayer (1989) published three different models of emotional intelligence in the 1980s; however, it was not until Goleman published his book *Emotional Intelligence – Why it can matter more than IQ* (1995) that the term emotional intelligence began to receive notoriety.

Currently, there are three major models of EI: (1) Mayor and Salovey's (1997) Ability model, (2) Goleman's (1995) Mixed model, and (3) Petrides, Pita, and Kokkinaki's (2007) Trait model. Various models of emotional intelligence have contributed to an assortment of assessment instruments that explore different aspects of EI. Each of the three major models of EI, the attributed assessment developed to measure the constructs related to each model, and recognized criticisms for each model are discussed in the paragraphs that follow.

Crafted by Mayer and Salovey (1997), the ability-based model views emotions as helpful sources of information that help individuals understand and navigate their social environments (MacCann, Newman, and Roberts, 2014). MacCann, et al. (2014) suggested that, under the ability based model, EI model can be viewed in four types of

abilities: (1) the ability to perceive emotions, (2) the ability to use emotions (3) the ability to understand emotions, and (4) the ability to manage emotions using a number of human capacities identified by other published researchers work on identifying and understanding emotions. Bradbury and Sue (2003) criticized the ability based emotional intelligence model for lacking face and predictive validity in the workplace; still ability EI tests have a much greater advantage over self-reported scales of EI because they do not rely on individuals' endorsement of descriptive statements about themselves (Bradbury and Sue, 2003). The current assessment for the ability model is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). It is modeled after and administered similar to the ability-based Intelligence Quotient (IQ) tests.

The MSCEIT is based on emotion-based problem-solving items (Salovey and Grewal, 2005). The ability model of EI maintains that perceiving, using, understanding, and managing emotions all require attunement to social norms. Thus, the MSCEIT is scored based on the consensus provided by a worldwide sample of respondents. While modeled after IQ ability tests, there are no objectively correct answers to the questions on the MSCEIT, posing threats to generalizability (Maul, 2012). Mayer, Salovey, and Caruso (2012) responded to criticisms raised by Maul (2012) citing the standardized sample of 5000 participants and additional studies that supported their findings. Mayer, Salovey, and Caruso (2012) also discussed the fact that users can opt to have their MSCEIT assessment expert-scored, which would mean that the results of individual responses would be scored by a group of 21 emotion researchers (Salovey and Gruel, 2005), which was developed to provide skeptics more confidence in the test results.

The mixed model describes the Goleman (1995) model and outlines five main EI constructs: (1) self-awareness, (2) self-regulation, (3) social skill, (4) empathy, and (5) motivation. Goleman (1995) also described a set of emotional competencies within each of the five constructs. Goleman (1995) posited that individuals are born with a general emotional intelligence that influences their emotional capabilities. There are two assessment instruments based on the Goleman model. Boyatzis, Goleman, and McKee (2005) developed the first. The Emotional Competency Inventory (ECI) was created in 1999 and became the Emotional and Social Competency Inventory (ESCI), a newer edition of the ECI, in 2007. The Emotional and Social Competency – University Edition (ESCI-U) is also available. The second tool is the Emotional Intelligence Appraisal, which was created in 2001, and which can be taken as a self-report or 360-degree assessment (Bradberry & Greaves, 2009).

Goleman's model of EI has been criticized in the research literature as mere "pop psychology" (Mayer, 2000). Mayer (2000) discussed the lack of established literature on the relatively young scientific theory as a criticism. He also asserted there was no evidence to suggest that emotional intelligence would outperform intelligence as a predictor of success (Mayer, 2000). Despite such criticisms, emotional intelligence continues to be sought after in its application to educational leadership because of its predictive quality and its relation with the human aspect inherent in school environments as discussed later in this chapter (Doe, Ndinguri, Phipps, 2015; Gray, 2009; Johnson, Aiken, Steggerda, 2015; Mills, McDowelle, &Rouse, 2010; Moore, 2009; Potter, 2011; Russell, 2008; Stephens & Hermond, 2009; Wells, 2015).

Petrides, Pita, and Kokkinaki (2007) proposed distinguishing emotional intelligence as being related to personality traits (attitudes and behaviors) as opposed to being related to cognitive ability and skill. Trait EI refers to an individual's self-perceptions of their emotional abilities, thus, it is more focused on the attitudes and personality of an individual, rather than a set of skills or abilities. Because of its focus on self-perceptions, Trait EI is a process that involves self-reporting, as opposed to the ability-based model. An alternative label for the same construct is trait emotional self-efficacy (Petrides, et. al, 2007). The trait EI model assumes the Goleman model as discussed earlier; however, it posits that one's personality trait is its own entity, apart from cognitive ability. This is an important distinction in as much as it bears directly on the operationalization of the construct and the theories and hypotheses formulated about it (Petrides & Furnham, 2001).

There are many self-reporting measures of EI. One of the more comprehensive and widely researched measures of Trait EI is the Trait Emotional Intelligence Questionnaire (TEIQue). The TEIQue is modeled after the work of Petrides and colleagues (2001; 2007), which conceptualizes EI in terms of personality (Petrides & Furnham, 2003). The TEIQue test is organized under four factors: well-being, self-control, emotionality, and sociability and measures the following fifteen facets: adaptability, assertiveness, emotion appraisal, emotion control, emotion expression, emotion management, low impulsiveness, relationships, self esteem, self motivation, stress management, social awareness, trait empathy, trait happiness, and trait optimism (Petrides, 2009). A full explanation of the fifteen facets of the instrument and the instrument itself are provided in Appendix B.

The TEIQue instrument faced criticism for its self-reporting nature. To determine the reliability and validity of the TEIQue instrument, Mikolajczack and Leroy (2007) examined seven samples with a total of 740 male and female participants ranging from college students to laymen, and the results of their TEIQue assessments. There were 512 women, 217 men, and 11 unreported gender. They reported encouraging preliminary findings in favor of the use of the TEIQue (Mikolajczak & Leroy, 2007). Mikolajczack and Leroy (2007) also uncovered several findings, including a statistic that showed unemployed people having the lowest EI scores, which is in accordance with the current idea that EI is useful in predicting professional success and leadership. Another especially interesting finding was that TEIQue scores were dependent on gender but relatively independent of age which runs counter to the ideas about digital natives (generations of people who were born in an era reliant on digital technologies) and digital immigrants (generations of people who witnessed the growth of societal dependency on digital technologies) (Prensky, 2010).

Mikolajczack and Leroy (2007) also acknowledged several limitations within their study: (1) Most of these samples in the study involve students, thus raising concerns about the generalizability of the findings to other populations. (2) The self-reporting aspect of the TEIQue present opportunity for bias for fake responses. (3) The differences across occupational sectors should be interpreted with caution, because only a limited sample of occupations was included in the analysis, and cross-sectional methodology does not allow conclusions of causality. They also maintained that in addition to addressing these three issues, future studies would benefit from considering other types

of criterions such as behavioral (e.g., performance) or medical ones (e.g., health status) (Mikolajczak & Leroy, 2007).

Mayer (2008) posited that higher scores on EI measurement instruments were associated with individuals who had better social relationships in both children and adults, were perceived more positively by others, had better family and intimate relationships, had better academic achievement, had better social relations during work performance and in negotiations, and had a better psychological well-being. The concept of higher EI scores relating to better social relations during work performance and in negotiations is especially important when considering the implications emotional intelligence may have on educational leadership. The fifteen domains on the TEIQue assessment for Trait Emotional Intelligence provides a description of the various skills and traits that are attributed to collaborative and leadership abilities (see Figure 2 below).

The Sampling Domain of Trait Emotional Intelligence in Adults and Adolescents

Facets	High scorers perceive themselves as…
Adaptability	…flexible and willing to adapt to new conditions.
Assertiveness	…forthright, frank, and willing to stand up for their rights.
Emotion perception(self and others)	…clear about their own and other people's feelings.
Emotion expression	…capable of communicating their feelings to others.
Emotion management(others)	…capable of influencing other people's feelings.
Emotion regulation	…capable of controlling their emotions.
Impulsiveness (low)	…reflective and less likely to give in to their urges.
Relationships	…capable of having fulfilling personal relationships.
Self-esteem	…successful and self-confident.
Self-motivation	…driven and unlikely to give up in the face of adversity.
Social awareness	…accomplished networkers with excellent social skills.
Stress management	…capable of withstanding pressure and regulating stress.
Trait empathy	…capable of taking someone else's perspective.
Trait happiness	…cheerful and satisfied with their lives.
Trait optimism	…confident and likely to "look on the bright side" of life.

Figure 2. The sampling domain of trait emotional intelligence (Petrides, Pita, Kokkinoki, 2007). This figure explains the fifteen domains of the TEIQue and describes how high scorers of each perceive themselves. No permission is required for research purposes that are non commercial. See the following website for more details: http://www.psychometriclab.com/Home/Default/18.

Again, as fascinating as emotional intelligence is, there also exists in the literature criticism of emotional intelligence theory and its three models (ability, mixed, and trait). Eysenck (2000) suggested Goleman's description of EI contains no "sound scientific basis." Locke (2005) wrote that the concept of EI is mislabeled and suggested that intelligence is an ability to make sense of the abstract; therefore, intelligence should be applied to various domains or skills, emotion being one of those domains or skills. Landy (2005) wrote that the few validity studies conducted on EI have shown that it adds little or nothing to the explanation or prediction of outcomes like academic and work success. Roberts, Zeider, and Matthews (2001) suggested that the MSCEIT might only be measuring conformity since it based on a consensus of a sample of worldwide respondents. Adding to that criticism is the concept that unlike IQ tests, the MSCEIT may test knowledge of emotions, but does not necessarily assess the ability to perform the tasks related to the emotion (Brody, 2004). There is also always the possibility that respondents with self-reported tests could "fake good," or enact socially desirable responding (SDR), in which they respond to represent themselves with a positive bias.

Goleman (1998) asserts that the most effective leaders all have a high degree of what has become known as emotional intelligence, however, Mayer and Salovey (1997) and Landy (2005) cautioned against the assumption that highly emotionally intelligent people possess an advantage because it is presently not supported by scientific standards. Antonakis, Ashkanasy, and Dasborough (2009) and Antonakis and Dietz (2011) posited that researchers testing whether EI has a correlation with leadership have not used robust research designs, and thus, there is currently no strong evidence indicating EI as a predictor for leadership outcomes.

Despite the criticism for the emotional intelligence theory, it is important to note that self-reported and Trait EI measures retain a fair amount of predictive validity for job performance after controlling Big Five personality traits and IQ (Newman, Joseph, and MacCann, 2010). The Big Five personality traits model, defined by several independent groups of researchers, was designed to understand the relationship between personality and academic behaviors (Poropat, 2009). Tupes and Christal (1961) developed the initial model. Digman (1990) advanced the model with his five-factor model of personality, which was later extended to include the following traits: (1) openness to experience (*inventive/curious* vs. *consistent/cautious*), (2) conscientiousness (*efficient/organized* vs. *easy-going/careless*), (3) extraversion (*outgoing/energetic* vs. *solitary/reserved*), (4) agreeableness (*friendly/compassionate* vs. *analytical/detached*), and (5) neuroticism (*sensitive/nervous* vs. *secure/confident*), often listed under the acronyms *OCEAN* or *CANOE*. The International Personality Item Pool (IPIP), managed by the Oregon Research Institute, is a public domain collection of items for assessing for the Big Five Personality traits, thus strengthening the validity of self reported emotional intelligence trait model assessments.

Further supporting the usefulness of emotional intelligence, Newman, Joseph, and MacCann (2010) argue that self-reported emotional intelligence predicts job performance well (as well as any other personality measure), and this is due to how mixed and trait EI constructs relate to self-efficacy and self-rated performance.

The following table describes the three emotional intelligence models: ability, mixed, and trait. It is important to note that of the three models, the trait model is more comprehensive, covering at least twice the amount domains of the other two. Further, as

suggested previously, the trait model is more widely accepted than the other two models of emotional intelligence. For these reasons, the TEIQue exam is the best fit for the purposes of this study.

Table1

Emotional Intelligence Model Comparison Chart

Emotional Intelligence Model	**Instrument Summary**
Mayor and Salovey's (1997) **Ability model**	Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT): The Mayor and Salovey's (1997) Ability model is viewed in four types of abilities: (1) the ability to perceive emotions, (2) the ability to use emotions (3) the ability to understand emotions, and (4) the ability to manage emotions.
Goleman's (1995) **Mixed model**	The Emotional and Social Competency Inventory (ESCI): The mixed model describes the Goleman (1995) model and outlines five main EI constructs: (1) self-awareness, (2) self-regulation, (3) social skill, (4) empathy, and (5) motivation.
Petrides, Pita, and Kokkinaki's (2007) **Trait model**	Traits Emotional Intelligence Questionnaire (TEIQue): The TEIQue test developed by the work of Petrides, Pita, and Kokkinaki's (2007) is organized under four factors: well-being, self-control, emotionality, and sociability and measures the following fifteen facets: adaptability, assertiveness, emotion appraisal, emotion control, emotion expression, emotion management, low impulsiveness, relationships, self esteem, self motivation, stress management, social awareness, trait empathy, trait happiness, and trait optimism.

Primal Leadership theory suggests that emotional intelligence is the key skill behind effective leadership. Emotional intelligence encompasses self-awareness of one's emotions, the ability to perceive the emotions of others, and the ability to use those understandings to make effective behavioral and cognitive decisions accordingly. In a leadership position that holds no authoritative power to leverage change, emotional

intelligence is a key skill for the instructional technology leader as he or she works to influence positive systemic school change by way of successful technology implementation and integration. The section that follows highlights a conceptual framework that connects Adaptive Leadership, Authentic Leadership, and Primal Leadership through Emotional Intelligence.

Conceptual Framework

The relationship between Adaptive Leadership theory, Authentic Leadership theory, and Primal Leadership theory and how they connect to emotional intelligence is illustrated in the figure "The AAP Conceptual Framework." This AAP Conceptual Framework illustrates a leadership model for informal or non-traditional educational leadership roles that lack the coercive, legitimate, and reward power bases and are instead supported by expert, information, and referent power bases. For non-traditional leaders that lack authoritative stances, as the Apple trademark slogan goes, there is an AAP for that. The AAP Conceptual Framework may be essential for the instructional technology leadership role in addressing how this group of leaders can be effective without the use of authoritative power.

The AAP Conceptual Framework

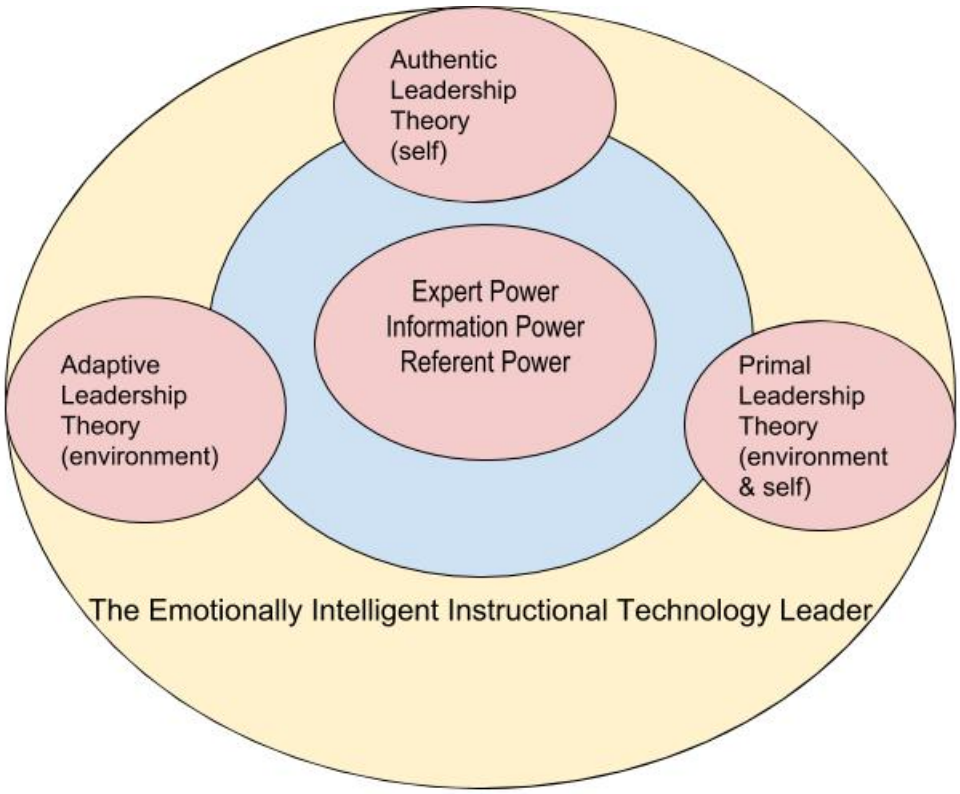

Figure 3. The AAP Conceptual Framework. This figure explains the relationship between Adaptive Leadership theory, Authentic Leadership theory, and Primal Leadership theory and how they work together to inform the Emotionally Intelligent Instructional Technology Leader.

The figure shown above displays information power, referent power, and expert power at the center of emotionally intelligent instructional technology leaders. These three bases of power form the foundation of the leadership theories from which an emotionally intelligent leader operates. Supported by the three aforementioned bases of power are adaptive leadership theory, authentic leadership theory, and primal leadership theory. The emotionally intelligent instructional technology leader is able to move continuously and non-directionally through these three modes of leadership. The section

that follows provides applications in the literature of emotional intelligence to both educational leadership and instructional technology leadership.

Applications of Emotional Intelligence to Educational Leadership

Emotional intelligence has origins that began in the 1950s; however, Goleman (1995) popularized the concept. Goleman's (1995) book asserted three major concepts that caught the attention of educational leaders: (1) rudeness, irresponsibility, and violence is a serious problem plaguing both the nation and the nation's schools, (2) scientists had discovered a link between high emotional intelligence and pro-social behavior, and (3) emotional intelligence was more powerful than intellectual intelligence at predicting one's perception of success in life (Mayer & Cobb, 2000). Mayer and Cobb (2000) asserted that educational leaders and policy makers quickly embraced emotional intelligence in the way that it has since the 1950s embraced various waves of interest directed at educating aspects of the mind, citing the following examples: (1) rising confidence in science and engineering in the 1960s that led to focused attention on the person as machine resulting in an emphasis on teaching machines in education, (2) exploration of personality in the work of psychologists Abraham Maslow and Carl Roger in the 1970s that led to the affective education movement, (3) the cognitive revolution in psychology and in education in the 1980s resulting in a renewed emphasis on basic academic skills, along with an increased attention to learning disabilities, and (4) the growing international competition resulting in a renewed focus on intelligence and an emphasis on educational accountability and testing. Mayer and Cobb (2000) provided warning against allowing such influences to shape educational leadership and policy without sufficient scientific support. Still, emotional intelligence is an emerging,

promising theory that can positively impact educational leadership, but it requires additional research to support its central hypothesis (Mayer & Cobb, 2000).

As Mayer and Cobb's (2000) assertions cautioning educational leaders and policy makers against using emotional intelligence to inform practice without scientific support, research has surfaced to support the existence and the importance of emotional intelligence to leadership and success (Doe, Ndinguri, & Phipps, 2015; Mills, McDowelle, & Rouse, 2010; Potter, 2011). Doe, Ndinguri, and Phipps (2015) asserted that even though the debate is still ongoing, neurobiological research suggests emotions are largely responsible for decisions made during difficult times, as in the case of educational leaders.

Neurobiological research that supports the connection between emotional intelligence and success in leadership can be categorized as follows: (a) Neurological science conducted with technology such as Functional Magnetic Resonance Imaging (FMRI) that physically demonstrates how the brain responds; and (b) rigorously controlled behavioral experiments focused on the role of the emotions in decision-making (Mills, McDowelle, & Rouse, 2010). When the brain is used and there is mental activity, the brain uses oxygen and glucose to fuel that activity. FMRI technology tracks the expenditure of oxygen and glucose and identifies specific areas of the brain associated with specific events and activities. FMRI shows the amygdala in the brain is associated with emotions and that the amygdala interacts with other areas of the brain such as the prefrontal cortex to make decisions. In other words, emotions are physically connected to how people make decisions. This is especially critical in the case for exploring the

connection between emotional intelligence and leadership (Mills, McDowelle, & Rouse, 2010).

Mills, McDowelle, and Rouse (2010) cited the behavioral experiments conducted in 2001 in which strangers were paired together and asked to note emotional cues such as eye contact, observation of facial expressions and body language to ascertain whether they trust each other. People who suffered some trauma to the amygdala were not as able to make good decisions about who to trust as those with a fully functioning amygdala, further supporting the idea that emotional intelligence and quality of decision-making are connected (Mills, McDowelle, & Rouse, 2010).

Emotional intelligence has been identified as accounting for the success and failure of leadership (Doe, Ndinguri, & Phipps, 2015; Mills, McDowelle, & Rouse, 2010; Moore, 2009; Potter, 2011). Gray (2009) posited that emotional intelligence is the cornerstone of every decision. Potter (2011) conducted a qualitative study with eight participants divided into two groups: high achieving school leaders and average achieving school leaders. Potter labeled each participant as high or average/low achieving school leaders based on past professional achievements for each participant. There was no disclosure in the study regarding the process for determining the participant's achievement designation. After determining the achievement label, Potter (2011) used the Emotional Skills Assessment Process (ESAP) instrument to measure the emotional skills of the participants. Potter (2011) found that the higher achieving group of educational leaders scored higher on the standard skill sets than the average achieving group, supporting the concept that there may be a link between emotional intelligence and leadership success. There was lack of disclosure regarding the process for

determining the participant's achievement designation and the participant pool included a variety of school leadership roles (high school principal, lead teacher, college administrator, etc.). Narrowing the scope of focus in the research to one leadership role and, at the very least, disclosing the process for determining the success of a school leader would have strengthened the study tremendously. The study does, however, provide insight with regard to how emotional intelligence may have a relationship with how others (in this case, the researcher) perceive you. Instructional technology leaders rely on their interactions with the teachers they serve, and so one's emotional intelligence and perceptions become a critical key in improving effectiveness.

While leadership theory has often been described by the successful or unsuccessful actions and/or abilities of leaders (Bolman & Deal, 2008; Northouse, 2010), emotional intelligence encompasses more than just the actions and abilities of an individual: it also surfaces a way of being (Wells, 2015). Wells (2015) acknowledged the current levels of stress that school leaders face and posited that the practice of mindfulness (a synthesis of applying emotional intelligence, self care, and social intelligence) may reduce stressors and improve leadership effectiveness. Wells's (2015) work was inspired by Boyatkis and McKee (2005) who coined the term resonant leadership which was one that relied on leaders demonstrating emotional intelligence, compassion, and spreading hope across the organization.

Johnson, Aiken, and Steggerda (2015) posited an emotional cost to leadership and found uncovering how educational leaders navigate their emotions is critical to their success. Johnson et. al. (2015) began with a review of the literature, and then they used the C-IA technique, an exploratory, qualitative method used to generate descriptive, self-

reported data on human activity and behavior. The starting point for their study was a self-inquiry into their own personal accounts in educational leadership to build upon our their collaborative and respectful relationships as colleagues with the purpose of improving their interview techniques and analysis with respect to emotionally charged data (Johnson, et. al., 2015). Johnson, et al. (2015) study was a qualitative exploration of six educational leaders and critical incidents that took place in their lives regarding the emotional aspects of educational leadership. Johnson, et al. (2015) found the following four emergent themes: (1) crossing emotional barriers, (2) value driven emotions and leadership tools, (3) adaptive emotional capacity, and (4) subjectivity and emotional competence. These four themes are useful in exploring the nuances of emotional intelligence in educational leadership.

Russell (2008) also asserted there are characteristics emotionally intelligent leaders share. Russell (2008) conducted a qualitative study with a phenomenological approach that included interviews of successful leaders in education at the elementary, secondary, and post-secondary levels. Russell's (2008) research focused on the phenomenon of educational leaders that found joy in their work. Key questions that drove the study were as follows: Why are some educational leaders enthusiastic and engaged? What are the important factors influencing enthusiasm and engagement with the work of educational leaders? How do they hope to encourage others to be enthusiastic about work? Russell (2008) found the following three characteristics emerged as being related to positive emotional intelligence (enthusiasm and engagement with work): collaborative leadership style, a strong work ethic, and alignment of personal and organizational missions. Russell's (2008) work speaks to the importance of emotional

intelligence in educational leadership, which undergirds the purposes for this research study.

Emotional intelligence adds an important factor for educational leadership, administration, and policy: the human aspect. This factor is especially essential when considering addressing the needs of educators who are digital immigrants. Prensky (2001) wrote, "…our Digital Immigrant instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language." The instructional technology leader is charged with motivating and equipping teachers with the skills necessary to prepare future generations, despite the natural struggles and gaps that may exist for educators who are also digital immigrants. Gray (2009) in his discussion of digital natives and digital immigrants asserted that social awareness, empathic behavior, decision-making, and the ability to exert a positive influence are necessary skills for instructional leaders in creating effective educational environments. Instructional leaders who are able to emphatically connect with digital immigrants in a positive way may be better equipped to inspire teachers to move beyond any initial reluctance to integrate technology in instructional practice. Stephens and Hermond (2009) also posited the importance of emotional intelligence (EI) levels as it relates to educational leadership traits for school principals in affecting positive change in instruction. For the school principal, the supervisorial authority of his or her position allows him or her to influence change within the organization without having to persuade subordinates to buy in before complying. The educational technology leader's role is a supportive and an instructive role and often does not come with supervisory or managerial tasks, responsibilities, or authorities. Thus, the educational technology leader

must rely on a unique set of skills to influence positive change through persuasion. Being aware of the collective feelings of an organization in response to any leadership initiative, such as the adoption and use of new technology, allows the educational technology leader to respond and pacify any concerns. If teachers are able to emotionally accept the same technological advocacy promoted by the educational technology leader, then there is more room and opportunity for initiative and action on the leader's part. If individuals' emotional concerns are not met, then a leader may be unable to take any initiative, manifest change, or react to external change, as no leader can truly act alone.

Applications of Emotional Intelligence to Instructional Technology Leadership

Instructional technology in education has expanded since the 1990s (Delgado, Wardlow, McKnight, & O'Malley, 2015). Delgado et al. (2015) referred to this shift as the "digital revolution" which describes the shift from analog, electronic, and mechanical tools to the digital tools relied upon today (p. 397). The amount of digital information available today at the fingertips of students is massive; however, there are dangers and limitations that lie in the technologies that are steadily advancing each day (resource availability, accuracy and reliability of information, appropriateness of material, relevancy of resources) (Delgado et al., 2015).

Defining exactly what is "instructional technology" or "educational technology" is difficult. It is an ambiguous term used to reference computer assisted instruction (CAI), simulations, games, laboratory instruments, technology software or hardware, computer programs for classroom management or lesson presentation, and "Second Life" programs that offer students virtual reality environments for learning (Delgado et al., 2015). Overall, instructional technology is about integrating technology in K-12

curriculum in one or more of the following ways: (1) 1:1 ratio in which every student has access to a computer; (2) Bring Your Own Device (BYOD) models in which students are encouraged to bring a personally owned digital device to school for academic purposes, (3) Blended learning or hybrid where teachers use digital technology in traditional classrooms on a regular basis by making lessons available online for students to access anytime; (4) Flipped learning or flipped classrooms where students access the content knowledge outside of the classroom and use the traditional classroom space and time to practice applying the content knowledge; and (5) Online Learning where the activities and learning take place completely in a digital format (Delgado et al., 2015).

Digital technology tools and Internet access are necessary components in K-12 education (Delgado et al., 2015; Gray, 2009; Sang, Holmes, & Mims, 2005). Still, Basham, Smith, Greer, and Marino (2013) argued that emphasis should be placed on instructional goals and design principles, rather than instructional technology availability. Basham et al., (2013) posited that educational leaders must play a role in the following three key areas: using technology to improve the accessibility and usability of curricular materials to meet the needs of different types of learners, advancing the understanding and practices of both in-service and pre-service teachers, and fostering collaboration between educational researchers and technology developers to inform K-12 online education. Instructional technology leadership within a school or a school district is a complex task that is becoming more and more pivotal in the future of K-12 schools.

The search for articles related to both emotional intelligence and instructional technology leadership yielded zero results. The instructional technology leader, while serving a vital role for the school's successful implementation and integration of

technology, is a relatively young role in education and is not typically viewed as the traditional school leader. The lack of research exploring connections between emotional intelligence and instructional technology leadership, despite the vast array of literature regarding emotional intelligence and educational leadership, demonstrates a need for further study.

Summary

The role of the instructional technology leader is a new and exciting role in K-12 educational leadership emerging and blossoming since the 1980s (Barbour, 1986; Markowitz, 1998; Sugar & Holloman, 2009). Today, the instructional technology leader supports the traditional leadership of the school building principal in influencing and implementing technology integration for staff and students. Currently, the instructional technology leader is usually fully released from the classroom and does not have the same managerial and supervisorial duties of the building principal; however, the instructional technology leader often does not possess the same authority capabilities of the building principal. For this reason, the instructional technology leader relies on referent and expert power with regard to being skilled in technology as well as an ability to develop relationships through persuasion and emotional intelligence to push the practice of instructional technology forward for the school(s) that he or she serves.

There is a plethora of literature and research regarding instructional technology; however, studies that are centered on informing the unique role of the instructional technology leader are limited, suggesting that there is a gap in the literature regarding the role of the instructional technology leader. There is also a wealth of literature pertaining to emotional intelligence and its application to educational leadership; however, there are

no studies currently available that apply emotional intelligence to the role of the instructional technology leader. This study expanded upon the experiences of instructional technology leaders, their perceptions of their own emotional intelligence, and its impact on their work as leaders of technology integration in the schools that they serve.

Chapter 3: Methods

Introduction

This chapter provides an outline of the research methods used to conduct this study. The chapter begins with an exploration of the epistemological and ontological origins that undergird this study. Next, the chapter discloses my own subjectivity as the researcher. Then, the chapter addresses the research questions that framed this study. What follows is an overview of the methodological design selected for this study. The next section describes the guidelines used to select participants. Procedures are then discussed at length, followed by a description of the instruments used for data collection. The codes and processes determined for analytical use of collected data follows. Finally, ethical issues anticipated in this study are addressed. This chapter highlights the undergirding principle held by Rogers (1980) that will guide the research methodology for this study: "We think we listen, but rarely do we listen with real understanding, true empathy. Yet, listening, of this very special kind, is one of the most potent forces for change that I know" (p. 116).

Epistemological and Ontological Origins

Knowledge is a social reality: inherently, knowledge is embedded with learned values and experiences. Reality is relative: ontologically speaking, what one experiences as reality must be left to an individual's interpretation. Subjectivism is the branch of epistemology describing knowledge as having roots in the individual's mind and emotions. What is known is relative to the individual; therefore, knowledge is not rigid and there is fluidity in what is accepted as truth (Brown & Strega, 2005). It is rooted in

our perceptions to include memories and ways of seeing about experiences (Harper, 2002).

Research must be flexible enough to realize that everyone has a narrative important in building comprehensive knowledge about any particular experience. I am a constructivist thinker, one who recognizes each individual person constructs his or her own reality and there are multiple interpretations of any given experience. It is necessary and critical that I disclose subjective truths to present myself as a more effective listener for the participants, drawing out their individual interpretations of being an instructional technology leader in the K-12 school. Everyone's story, including mine, is an important aspect in developing this research.

Subjectivity Statement

The purpose of a subjectivity statement is for the qualitative researcher to disclose personal connections that he or she has with the research topic. I have many connections with this study, and it is important the connections were recognized and addressed prior to embarking in this research. I selected a basic qualitative approach in which the research would be designed to explore the experiences of instructional technology leaders; therefore, it should be noted that I work as an instructional technology leader and so my career has created opportunities for researcher bias and/or lack of genuine or authentic participant responses due to my prior interactions with participants. For this reason, I disclosed the following subjectivity statement, which continues to protect the anonymity of the participants and describes any potential biases or threats to trustworthiness in this study.

Eisner (1994) argued, "The point of educational criticism is to improve the educational process. This cannot be done unless one has a conception of what counts in that process. Are the children being helped or hindered?" (p. 231). While this question remains to be answered, I consider myself to be an educational connoisseur, and so there must be a sustained effort to improve upon "what counts" in instructional mentoring/coaching practices and policies; however, determining "what counts" in education, like everything else, is a social construction. For me, what counts in education is the school's ability to generate, train, and sustain its greatest resource - the classroom teacher. Fullan (2001) stated, "an important end is to make a difference in the lives of students" (p. 13). Instructional technology leaders motivate educational leaders and teachers towards improvements in their student populations by training and advocating for continued use of digital technology that support and advance learning. The work that instructional technology leaders do must be a continual effort to seek and master viable innovations that prepare the children we serve for what is ahead.

After I graduated from a public, urban high school in 2000, I sought a degree in teaching. Upon graduation from college in 2005, I returned to teach in an urban public school district. As a first generation college graduate, public education has changed my course in life. My entire family has been plagued with living below the poverty line, being unemployed, or being incarcerated. Education is an avenue that allows people to choose to escape these paradigms. Public education is absolutely necessary because in many ways, it helped me to beat the odds.

After ten years of being a licensed classroom teacher, and two years of having earned the title of National Board Certified Teacher, I was promoted to the position of

Instructional Technology Resource Teacher (ITRT). The ITRT is the name of the school leadership position that serves as technology coordinator of a school or multiple schools in the state where I currently work. I am fascinated by the leadership role that the ITRT plays in orchestrating the training and implementation of instructional technology within a school building. I find myself comparing my work as an ITRT with how I worked as a classroom teacher. Classroom teachers are leaders of their students, and can often serve as mentors, coaches, or leaders for fellow teachers which were roles that I took on and enjoyed; however, as an ITRT, I am serving and leading a greater audience of my constituents. It has been quite a shift for me, but one that I have embraced with open arms.

I love the mobility of my work that affords me the opportunity to work in different schools throughout the week. As a classroom teacher, I often felt confined to the walls of my classroom. As an ITRT, I am expected to flow throughout the building, supporting teachers and students with instructional technology. I love the autonomy and the flexibility that comes with my position as an ITRT, but was not as available to me as a classroom teacher. I am able to create professional development content that I can share with the faculty members of the three schools that I support. I set my own goals and agenda for professional development and instructional technology support based on the needs that I perceive for each of my schools.

While there are many benefits that I find in my position as an ITRT, I have had my share of challenges transitioning into this leadership position. ITRTs in the state where I currently work are not required to hold any additional licensure or have any special training. I was hired because of my love for instructional technology, my record

of utilizing instructional technology in my own classroom practice, and my enthusiasm for wanting to share that with other teachers; however, I do not currently hold any professional degrees in technology. To further complicate matters was the fact that I was transitioning to an elementary school ITRT position after teaching in secondary schools for ten years. The instructional technology that I was familiar with and comfortable with in my own practice would not apply to the work that I needed to do as an elementary school ITRT.

As an ITRT, I have found that the ability to remain positive, flexible, and willing to self-train have been key players for success. I have had to spend hours teaching myself the various instructional technology resources available to elementary school teachers and students so that I could be a better resource to the schools I was elected to serve. I have also had to develop my own interpersonal skills so that I could effectively communicate new technology initiatives in a way that would reach teachers of various demographics and levels of experience. I believe that harnessing my own personal power and emotional awareness continues to be an anchor in my work as an ITRT.

I recognize that as an ITRT, I inherently possess bias with regard to any study pertaining to the work of instructional technology leadership. Too, as an ITRT, the likelihood of having previously worked with leaders within this study's population was considerably great. At the same time, it is important to note that while researcher subjectivities may bias or limit effort, they may also illuminate research inquiry. My work as an ITRT allowed me to more intimately understand the research provided in this study, and with proper precautions in place, I believe it strengthened the findings of this study.

To protect against bias in this study, I took field notes and analytic memos in an Impressionistic Record throughout the study in accordance with portraiture methodology. These field notes and analytic memos were kept to disclose my perceptions of and reactions to the data collected, and were used to surface how those reactions may have shaped the analysis of the data. Writing these notes and memos throughout the study allowed me to highlight my experiences as an ITRT in a way that can be bracketed from the data collected from the participants. More information with regards to the field notes and analytic memos are highlighted in the Trustworthiness and Dependability section of this chapter.

Research Question

The following question framed this study: How do instructional technology leaders perceive their own emotional intelligence (EI) and the role EI plays in the implementation and integration of instructional technology in the schools they serve?

Design

Merriam (2009) indicated basic qualitative research design was derived from constructionist, phenomenological, and symbolic ideas. Merriam suggests that the basic qualitative research designed should be practiced by researchers interested in how people make meaning of their experiences and how they "construct" their world. The research method of phenomenology is about reducing the experiences of people who share a phenomenon in order to describe a universal essence (Moustakas, 1994). The researcher then collects data from persons who have experienced the phenomenon and develops a profile (rather than analysis or explanation) of the essence of the experience for all the individuals (Moustakas, 1994). Still, basic qualitative research design has morphed

throughout the years to include a wide range of approaches and style not limited to phenomenology. Sauro (2015) posited that there are five basic types of qualitative design: ethnography, narrative, phenomenological, grounded theory, and case study. According to Sauro (2015), ethnography focuses on culture and context (no recommended sample size), narrative focus on individual experience and sequence (recommended sample size of 1 to 2), phenomenology focuses on people who have experienced a shared phenomenon (recommended sample size of 5 to 25), grounded theory focuses on a developing a theory from field data (recommended sample size of 20 to 60), and case study focuses on a singular organization, entity, individual, or event (no recommended sample size). As it pertains to this study, a narrative approach is most suitable because it encourages opportunities to uncover the individual experiences of instructional technology leaders and allows the unfolding of sequences, stories that may highlight the process instructional technology leaders embark upon to build relationships with teachers that result in increased engagement with educational technology.

Creswell (2003) provided four categories for qualitative data-collecting procedures: observations, interviews, documents, and audiovisual materials. He suggested that interviews are the most common form of data collection (Creswell, 2003). Observations, documents, and audiovisual material data can add depth to research (Creswell, 2003). This research was concerned with participants navigating, facilitating, and leading instructional technology, rich in audio-visual aspects. Thus, it was appropriate, if not imperative, to provide an opportunity for field observation in this study.

Portraiture, a term coined by Lawrence-Lightfoot over thirty years ago, emerged

as a phenomenological methodology bridging art with science and empirical with aesthetics. Portraiture, which first appeared in Lawrence-Lightfoot's 1983 work, The Good High School, "was both welcomed and resisted" (Lawrence-Lightfoot, 2005, p. 7). Portraiture aims to capture the essence of its participants, its subjects, through careful, detailed storytelling (Lawrence-Lightfoot & Davis, 1997).

Of portraiture, Neische (2011) noted the following: "the portraitist is looking *for* a story rather than listening to *it*" (p. 7). Unlike case study methodology, the research findings (the portrait(s) are heavily influenced by the artist crafting the portrait, the researcher. This is known as the "voice" of the portraitist, which is a distinction that sets portraiture apart from other qualitative methodologies. While the implicit use of the researcher's voice and perspective has been criticized as a drawback of the methodology, it has been cited as a useful approach to studying educational leadership (Hackmann, 2002).

The portraiture methodology falls in the category of qualitative research design and is considered a narrative approach; however, research portraits have unique elements that set the finished product a part as a work of art. Portraiture is concerned with five factors that distinguish its methodologies from similar qualitative designs: context, voice, relationship, emergent themes, and aesthetic whole. These five factors undergird the research design, procedures, and data analysis processes for this study.

The first factor is context. Portraitist researchers are interested in employing the context of a research study in five ways: providing a detailed description of the physical setting; providing the researcher's perspectives, describing the history, culture, and ideology of the place; identifying the central metaphors and symbols that tell a story; and

highlighting the participant's (in portraiture, this person is referred to as the actor) role in shaping and defining the context.

The second factor is voice. Portraitist researchers are also interested in voice and may seek to use them in one of the following ways: voice as witness (the most restrained); voice as interpretation; voice as preoccupation; voice as autobiography; listening for voice; and voice in conversation & dialogue (where the researcher is creating the story with the participants/actors). The researcher's voice will transition throughout the study to meet the needs of participants and align with the narrative of the study.

The third factor is relationships. Relationships between participant and researcher do not typically go deep or sustained long. Rather, it is more typical for the relationship between researcher and participants are brief with the recognition that brief encounters do not necessarily equal insincere connections. Portraitists are advised to anticipate the unexpected and view relationships with participants as potentially meaningful for participants with the intention of creating a positive encounter by building trust through the search for goodness, through empathetic regard; and through the development of symmetry, reciprocity, and boundary negotiation with the actors (Lawrence-Lightfoot, 2005; 2016).

The fourth factor is emergent themes. Lawrence-Lightfoot (2016) posits that prior to considering themes, portraitists must begin research with an intellectual framework and a set of guiding questions that develops during a review of the relevant literature, exploration of prior autobiographical experiences of the researcher, and a general knowledge of the field of inquiry-in this study, it is the emotional intelligence

framework applied to the context of instructional technology leadership in K12 schools. Once in the field, the portraitist quietly listens, noting what is familiar and what is surprising at every stage of data collection and documents her journey at the close of each day in an "Impressionistic Record" (Lawrence-Lightfoot, 1997). The Impressionistic Record would contain the analytic memos and journals used to disclosed researcher bias throughout the data collection process. The portraitist develops codes to analyze collected data; however, the codes must be flexible and allow for emergent themes and "deviant voices" that differ from the norm (Lawrence-Lightfoot, 1997). The portraitist is interested in five modes of synthesis, convergence, and contrast: (1) repetitive refrains that are spoken (or appear) frequently and persistently, (2) resonant metaphors, poetic and symbolic expressions that reveal the ways participants or actors experience their realities, (3) themes expressed through cultural and institutional rituals that seem to be important to organizational continuity and coherence, (4) use of triangulation with the purpose of connecting data converging from a variety of sources, and (5) constructing themes and revealing patterns among perspectives that are often experienced as contrasting and dissonant by the participants or actors (Lawrence-Lightfoot, 2005; 2016).

The fifth factor is the aesthetic whole. Towards the conclusion of the study, the portraitist constructs an aesthetic portrait that addresses four dimensions: (1) conception- the development of the overarching story; (2) structure- the sequencing and layering of emergent themes that scaffold the story; (3) form- the movement of the narrative, and (4) cohesion- the unity and integrity of the piece. Portraiture does not exclude negative experiences; however, it is most interested in capturing the "goodness" of a phenomenon

(Lawrence-Lightfoot, 2016). The aesthetic element of this research study will emerge and take shape as the data and relevant themes emerge from the participants in this study revealed in Chapters 4 and 5 of this study.

This study is about capturing how instructional technology leaders are able to effectively influence technology implementation and integration in schools without having traditional authoritative power by exploring how classroom teachers and instructional technology leaders perceive their own emotional intelligence and how they both perceive the implementation and integration of technology in the schools. This study is very much concerned with the "goodness" of the instructional technology leadership role and what works well. Portraiture lends itself well to the purpose and questions that are at the foundation of this research study. This basic qualitative research study is intended to elicit forms of photo elicitation, narrative design, and portraiture with a blend of observations, interviews, and survey responses to capture the aesthetic story of instructional technology leadership through the lens of emotional intelligence theory.

The research questions guiding this study focused on understanding the experiences of an educational leadership role, the instructional technology leader, that often lacks organizational authority to assert or enforce programmatic policy or programs, but is often charged with the task of implementing and integrating policies and programs for instructional technology in the buildings they serve. The study also examined the experience of instructional technology leadership as experienced by classroom teachers that are supported by instructional technology leaders to get a richer story about this fascinating area of educational leadership. This study explored the instructional technology leadership role under the lens of emotional intelligence theory to

inform the phenomenon of unconventional school leadership practices in instructional technology.

Participants

The participants in this study were instructional technology leaders. Instructional technology leaders participating in this study had to be fully released from the classroom to serve a school building(s) to qualify for participation in this study. Participants were selected from a large Southeastern state in the U.S. Information about the study was sent to any entity within the state whose membership is comprised of instructional technology leaders. Miles and Huberman (1994) recommend sampling by taking "a smaller chunk from a larger universe." To meet the needs of this basic qualitative research design, I used purposive sampling, which allowed me to select members of the population that I believed would provide the best information. Participants were selected from the population and the sample contained no more than three participants (Fusch & Ness, 2015; Guest, et. al, 2006, Sauro, 2015). Participation in the study was voluntary.

Procedures

This section highlights the series of phases for the procedures in this research study after participants have been selected. In the Orientation Phase, a link was provided to participants that contained information about the purpose of the study and the procedures involved in the study. In the Data Collection Phase, participants were asked to sign a consent form, complete a TEIQue-SF assessment survey, be observed in their field as an instructional technology leader, and engage in an interview in which they will answer questions from a semi structured interview protocol. Finally, two optional

Feedback Sessions were offered to all participants to review the data collected and the researcher's findings.

Orientation Phase. Participants were given an opportunity to review information about the focus of the study and its procedures, the various types of data collected (TEIQue-SF assessment survey, observation, interview), the sessions held during the data collection phase (Initial Session-mandatory, Feedback Session-optional), and how the data will be used to create a full narrative portrait of their experiences as instructional technology leaders.

Data Collection Phase. First, participants were given the TEIQue-SF assessment survey which provided self reported information regarding their emotional intelligence under the lens of trait theory (Petrides, 2009). The survey lasted no more than 20 minutes. Secondly, the participants were observed in their field. The participants each selected a time and activity in which they want to be observed as they are engaged in their work as an instructional technology leader. The observation of each participant lasted no more than 40 minutes. The researcher took notes and photos of the observation for portraiture development purposes. The observation was used as a way to visually capture their experiences in implementing and integrating technology in schools as educational leaders. Thirdly, the researcher interviewed the participant about the observation. The interview lasted no more than 30 minutes. An analytic memo or journal (referred to as the Impressionist Record-see more information in the Design section earlier in this chapter) was be written for each formal interview that explained the researcher's thought processes in analyzing the information received from participants. Each data collection phase was done with participants individually.

Feedback Sessions. The Interview Protocol included information to guide the follow up Feedback Sessions, which were optional opportunities for participants to review their individual TEIQue results, data collected during the observation, the transcript of the interview, and researcher findings. Feedback Sessions were scheduled to last no more than an hour and were to be done individually with participants.

Instruments

There were three primary categories of data instruments: the TEIQue-SF assessment survey instrument, the observation protocol, and the interview protocol. The results of the TEIQue-SF assessment surveys would be scored using the Scoring Engine provided by the London Psychometric Lab website. The interview protocol and the observation protocol were collectively peer reviewed to address credibility and transferability. Both protocols would be carefully followed throughout the entirety of the research study.

Data Analysis

Data was analyzed using, Huberman, and Saldena's (2013) qualitative data analysis method, which includes three components: data reduction, data display, and drawing and verifying conclusions. Data reduction refers to reducing the amount of data provided without reducing the quality. All data for the study were kept; however, throughout the research process, I set aside the most striking points of data. Data display refers to the act of putting collected data into charts, graphs, diagrams, etc. Data (digital products) collected in this study will be displayed to represent themes that surface in the study. Drawing and verifying conclusions refers to the process of generating meaning and propositions from the data.

Miles, Huberman, and Saldana (2013) suggested 13 tactics for drawing and

verifying conclusions. This research study focused on three of these tactics: making metaphors, comparing and contrasting data, and making conceptual/theoretical coherence as methods in drawing and verifying conclusions. Making metaphors allows the researcher to listen for and use the metaphors described by participants in the research study. Miles et al., (2013) suggested metaphors are a strong descriptor of meaning, and it is very much a part of the research design of this study. Comparing and contrasting data allows the researcher to look for patterns of similarities and differences between groups of participants and/or data collected.

The data was purposively reduced using codes. Miles, et al. (2013) suggested two types of codes: descriptive codes and inferential codes. Descriptive codes are larger themes developed initially to categorize data. Inferential codes will be surfaced later in the data collection process and allows the researcher to code data using his or her interpretations. Both types of codes were included in this study.

After all data had been collected for each participant, the data (TEIQue-SF assessment results, observation data, and interview transcripts) were reviewed. After a thorough review, the results of each collected data were summarized with codes that were representative of statements that describe each aspect of the data. This list of descriptive codes was used to code each form of data. TEIQue-SF assessments results were coded first, followed by interview transcripts. Inferential codes would be surfaced later in the data collection process and allowed the researcher to code data using his or her interpretations. As the portrait for each participant was being drafted, emergent themes appeared, giving way to inferential codes used in the data analysis stage of this research.

Miles et al., (2013) suggested that qualitative data can be assessed using thirteen

strategies: (1) checking for representativeness, (2) checking for researcher effects, (3) triangulating, (4) weighing the evidence, (5) checking the meaning of outliers, (6) using extreme cases, (7) following up surprises, (8) looking for negative evidence, (9) making if then tests, (10) ruling out spurious relations, (11) replicating a finding, (12) checking out rival explanations, (13) getting feedback from participants. This research study will use triangulation of data and getting feedback from participants as methods in analyzing and assessing the data.

Miles et al., (2013) suggested triangulating one of more of the following types of data: data sources, methods, researchers, theory, and data type. This study triangulated the data sources (up to 3 instructional technology leaders across schools located in a large Southeastern state) and data type (questionnaires, observations, and interviews). Codes that emerged across the various types of data sources and types helped verify the data received and analyzed. Additionally, after I conducted a final analysis of the data, feedback of the data and analysis in a short narrative accompanied by a graph or chart of the findings will be presented to the participants. Participants were offered an opportunity to provide feedback on the data collected during the optional Feedback Sessions.

Data Handling

The researcher collected and stored the data generated during the research. A journal of field notes and memos as well as electronic interview transcripts, video and/or audio recordings of interviews, observations, and any other data collected were stored on two electronic data storage systems using terms to keep the anonymity of all participants. Notes and photographs taken during observations were compiled in a multi-media format

and digitally stored to accompany presentations of the data findings. Data will be kept for a period of seven years after the completion of the study. After that time, data will be destroyed.

Limitations

Several limitations existed with this research study. The qualitative approach places emphasis on perception. Perception is subjective by default, which makes validity and reliability within basic qualitative studies inherently difficult. Still, reality is comprised of many truths; therefore, perceptions are a necessary component of this research.

Consideration was given to expanding the study to include all instructional technology leaders across several states; however, expanding participation would limit the opportunity for rich, qualitative data present in the use of a smaller population. The qualitative research design is intended to provide a contextualized look at the experiences of people. Keeping the sample size at three or fewer participants will help get a more in depth profile of the experiences of this unique and unconventional educational leadership role.

Inaccurate data could have also been a point of limitation. It is possible for data to be misconstrued in the transcription of interview. It is also possible for participants to "fake good" as described in Chapter 2 of this study when self reporting on questionnaires like the one used in this study, the TEIQue-SF assessment. Another consideration of limitations in this study is the fact that the TEIQue-SF assessment's scores have also been found to be dependent on gender, but relatively independent of age (thus, interview questions regarding the participant's gender, age, perception of self as digital native or

digital immigrant have been added to the interview protocol so that the researcher can take those factors in consideration when analyzing the data). The possibility of participants not sharing enough information about their experiences in the interview process is also possible. Efforts to address these threats and limitations are highlighted in the next section.

Trustworthiness and Dependability

To increase trustworthiness of the findings, a process of member checking or participant feedback in which the final analysis of the data was made available to participants in two feedback sessions following the interview. The first feedback session allowed participants have the opportunity to discuss, respond to, and clarify the data if they choose. The second feedback session gave the participants the opportunity to reflect on the researcher's narrative summary and review charts or graphs of their collected responses. In addition, the researcher's field notes and analytic memos were made available to surface the researcher's perceptions of data collected. To further increase trustworthiness, the researcher also disclosed reactions to data to surface how those reactions may have shaped the analysis of the data. Interview transcriptions were member checked before being included in the study, thus creating an interpretive community in which the participants are involved in the construction and maintenance of the meaning for captured data (Fish, 1980). Finally, a peer researcher read selected sections and provided feedback to ensure clarity of data analysis.

The consistency of the findings or dependability of the data was promoted by a process of double coding where a set of data was coded, and then after a period of time, the researcher returned and code the same data set to compare the results (Krefting,

1991). The purpose for this double coding is to allow the researcher an opportunity to acknowledge time and evolution of thoughts as key factors in the data analysis process. Any discrepancies that emerged during the double coding process were disclosed in the findings.

Ethical Considerations and Precautions

Risks to the well being of participants were minimized in this study; however, if there is discomfort expressed by participants, they were free to withdraw from the study at any time. Because the interview and photo protocol asked participants to disclose what they believe are the factors that contribute to their development as teacher leaders their participation in the study presents very little to no risk to the participant's career or reputation. In an effort to protect the identity of the participants, pseudonyms were created for each participant and school location. Participants were also given two opportunities (feedback session 1 and feedback session 2 are both explained in the interview protocol) for member checking to ensure the participants are comfortable with what is shared in the study.

Summary

After careful consideration of the purposes, research question, and methodology plan for this research study, it was decided that the potential benefits in studying the experiences of instructional technology leaders far outweighed the limitations associated with this study's research design methodology. Studying experiences of instructional technology leaders supports the critical work in developing and sustaining this role so that it can effectively support the traditional school leader, the school building principal, in effectively implementing and integrating instructional technology to improve the

quality our schools to prepare our students for the ever changing and constantly advancing digital globe.

Chapter 4: Data Analysis

Introduction

The purpose of this study was to capture the experiences of the instructional technology leader. The study focused on the instructional technology leader's role within the school as an agent of change and an integrator of technology in education. This research illuminated areas in which instructional technology leaders believe themselves to be most influential, as well as the areas in which the technology leader feels limited within the role. The methodology and research focused on gaining insight on how three instructional technology leaders influence school instructional technology use through a semi-structured interview, and observation of the participant, and the results of a self-assessed TEIQue-SF survey to capture emotional intelligence. The premise of this study is captured by this quote from Stephen Covey's 2013 text, *The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change*: "We see the world, not as it is, but as we are—or, as we are conditioned to see it." This study focused on addressing the following research question: How do instructional technology leaders perceive their own emotional intelligence (EI) and the role EI plays in the implementation and integration of instructional technology in the schools they serve?

This chapter explores the experiences of instructional technology leaders who served as participants through narrative portraits. Each participant's portrait contains a brief introduction establishing the context of the participant's work as an instructional technology leader. The participants' voices were captured by descriptions of interviews and observations of their work in the field. The organization of each narrative was based on the four areas addressed during the interview and observation: becoming an

instructional technology leader, qualities of good instructional technology leaders, perceptions of instructional technology leaders, and successes and challenges of the instructional technology leader. Each narrative ends with a portraiture statement on the emerging themes from data collected, including the results of the TEIQue-SF assessment taken by the participant. The chapter ends with a summarizing data analysis of the three portraits developed in this study.

Setting and Context

The study centered on three instructional technology leaders using selection criteria outlined in the research design in Chapter 3. Each of the three instructional technology leaders expressed interest in participating in the study and excitement about an opportunity to share their experiences in this unique role. The three instructional technology leaders were purposefully selected because of: (1) varied levels of experience and school type, (2) the cohesiveness of serving schools within the same district, and (3) willingness to be interviewed and observed in their roles as instructional technology leaders.

Because the research did not directly involve data about students or teachers, approval from the district's research office was not necessary. Once I received permission from the Institutional Review Board at the George Washington University, I reached out to the coordinator of instructional technology leaders within a school district for permission to send a flyer to solicit participants for the study. Upon the coordinator's approval, I sent the flyer via email and received three responses from interested subjects. I contacted each of the three interested subjects to ensure they met the requirements for participating in the study.

It is important to note that with only 20 instructional technology leaders within the district, there was a risk that these three leaders would be identifiable. In contacting each of the instructional technology leaders, I reviewed the informed consent form, discussed my role as the researcher of the study, addressed the purpose of the study, and emphasized that their participation in the study was voluntary, would remain confidential, and that they could withdraw from the study at any time without consequence. Interviews and observations of the three instructional technology leaders that agreed to take part in the study occurred during the fall of 2017 as well as the spring and summer of 2018. The following table provides summary information for each participant.

Table 2

Participant Summary Information

Name:	**Justine**	**Lily**	**Gemma**
School Levels Served	Middle High	Elementary	Elementary Middle
Gender	Female	Female	Female
Race	African American	White	White
Years of Exp.	5 years as an instructional technology leader	13 years as an instructional technology leader	6 years as an instructional technology leader
Years in Current School	5	4	5

Quantitative Data Management

Though this study is qualitative, the TEIQue-SF is a quantitative tool that was used in this study to capture the emotional intelligence of the participants and to

understand a deeper context about their narratives. I provided each participant with a copy of the TEIQue-SF, to which they responded and returned. I input their responses into a dataset in IBM's Statistical Package for the Social Sciences (SPSS) for management and analysis. The appropriate questions were reverse scored based on TEIQue-SF author instructions (CITE). I created mean composite scores for the overall emotional intelligence subscale, as well as for the subscales of well-being, self-control, emotionality, and sociability.

Originally, I proposed to calculate and report Cronbach's alpha measures of reliability (internal consistency) for the overall scale and subscales of the TEIQue-SF. However, this was not appropriate given the small sample size. Recommendations for accurate calculation of Cronbach's alpha indicate that a minimum of 30 participants should be used (Yurdugül, 2008). Calculation of Cronbach's alpha could not be completed due to a sample size of just three participants. However, this scale has been previously well validated and generally shows good reliability in larger samples where measures of internal consistency could be calculated (e.g., Siegling, Vesely, Petrides, & Saklofske, 2015). For each participant, I will discuss the data collected during their interviews, followed by their scores on the TEIQue-SF.

A Portrait of Justine

Setting/Context

Justine was one of three instructional technology leaders who contacted me and agreed to participate in this study. I called Justine to share with her the details of the study and to ensure she would still be interested. Upon hearing that the study would be a qualitative study requiring an interview, Justine seemed reluctant to participate. She

asked why I had not selected a quantitative approach to the study and asked about the length in which interviews would last. I disclosed with her that as a participant, she would have the right to answer or not answer questions according to her comfort. She shared that her personality is such that she is very much "to the point," and asked if I felt her responses would be "enough." I tried to reassure her that the study is about uncovering experiences and that there is much to uncover even in brevity. We had a good laugh about it, and she agreed to take part, expressing that she too was in a doctoral degree program and wanted to support the cause for a dissertation about the work that she does every day. We scheduled an interview to be conducted on a Saturday morning at a coffee shop Justine recommended.

There was inclement weather the morning of our intended interview. I called Justine to see if we could reschedule our interview, and she expressed that she would rather dive in and do the interview anyhow. She suggested we conduct the interview via Google Hangouts, citing that we would be able to record the conversation using this technological tool. The interview would indeed be unorthodox, but representative of Justine. Her reliance and ease with use of various technology tools sets her apart as a digital native.

We disconnected the call, and I worked to set up a Google Hangouts conference call. I dialed her Google account, and we were connected right away with video and audio. When Justine answered the call, her hair was tied up with a scarf; she was wearing a T-shirt, and was lying in her bed. Rubbing her eyes, she laughed and shared how grateful she was for the snow because she did not want to get out of bed and travel in the inclement weather.

Justine and I had worked together previously in the same state. We both were classroom teachers at separate schools within the state that both had dual enrollment at a local university. Our shared experience in the classroom provided us both a level of comfort and ease throughout our conversations together. While I have always known Justine to be a hard worker and a diligent educator, I also understood Justine to be a seeker of both comfort and sensibility. This interview would prove to be no exception.

Becoming an Instructional Technology Leader

Prior to serving as instructional technology leader, Justine taught in the classroom for seven years. She is a licensed secondary social studies teacher with an endorsement in school administration. She taught social studies at a middle school. In her interview, she talked about how she always incorporated technology in her history classroom lessons. For Justine, using tools such as Newsela and Kahoot It!, helped build and sustain student engagement in the content. While she did not attend any traditional preparation programs for instructional technology leadership, she remarked, "…when the opportunity came open for me to apply for this position, I did and I created a portfolio which comprised of ways in which I supported…my colleagues and my students with incorporating technology…"

After becoming an instructional technology leader, Justine quickly realized the role was not what she expected. When asked to describe any surprises she had since becoming an instructional technology leader, she said "I would say the lack of support is probably the primary surprise." Justine described her school settings as not being supportive of her work in integrating instructional technology. She talked explicitly about how both the school principals and the central office staff she has worked with in her district seem unwilling to provide her with the financial resources and the leadership

platform to move instructional technology practice forward in her buildings. She attributed challenges with teacher buy in for her support as an instructional technology leader to the lack of support from school and central office administration.

Qualities of Good Instructional Technology Leaders

Justine's definition of qualities that good instructional technology leaders possess consisted of competency and interpersonal skills. Justine stated that interpersonal skills are important with any leadership role, "…because being able to develop relationships with people I think gets you further than your competencies sometimes." Probing further, I asked about the skills needed for instructional technology leadership that are different from the skills that she has used as a classroom teacher or even in other educational leadership positions. Justine responded by talking about adult learning theory. Her statement on adult learning theory captured what a mix of the two skills she identified as being critical to the work of instructional technology leadership (competency and interpersonal skills):

> As a classroom teacher, you're working with the students and teaching students [but,] professional development and training for adults is different…you have to understand those differences and make sure that you meet the needs of an adult learner when you are providing training and professional development.

I wanted to know more about adult learning theory and what it meant for Justine. I asked Justine if she had any training with adult learning theory as an instructional technology leader. She laughed a little, maybe even what some might call a nervous laughter, and asked if I was referring to training she has received from her district, or training she has received from professional development she has sought on her own. Justine discussed with me how important it is for her, as an instructional technology leader, to be a continual learner, remarking it as one of the reasons why she is still

attending graduate school. As an instructional technology leader, though, Justine mentioned that most of her training is not given to her by her district. According to Justine, most of her professional development experience comes from a curiosity to learn and know more. She learned about adult learning theory in her graduate coursework and could apply it to her work providing professional development to the teachers in the school buildings she supports.

In the interview, Justine labeled herself as "naturally an introvert." She talked about how she often prefers to work alone. She described her attitude while she was a classroom teacher: "I would prefer to work by myself, stay in my classroom, in my bubble by myself. And so I have had to fake it and, you know, engage and develop those relationships with the teachers and the administrators that I work with now." Her responses prompted me to think more about the mode in which she suggested we complete our interview. Google Hangouts, a technological tool that equips users with a virtual space that can be manipulated to allow participants to interact and engage from their own comfortable spaces. Justine's interview and the use of Google Hangouts to capture the interview was a striking representation of how she described her personality with regard to what she perceives is necessary for her work as an instructional technology leader.

I asked Justine to tell me more about this "faking." She said, "I…was never a teachers' lounge person, you know….but in my role as an [instructional technology resource teacher] ITRT, a lot of times…the conversations [with teachers you support] are not grounded in edtech." Justine talked about having to be willing to hear about the other challenges and personal things happening in teachers' lives before you might find an

"opening" to discuss how you can support them with technology integration. For Justine, this is not a natural process. She talked about a dichotomy between what she believes is necessary with her relationships in her work as an instructional technology leader and communicating with others in her personal life:

> … I just want to get to the end. I want to get to the bottom line. And so in my personal life, you know, when people start doing all that talking around the merry go round…I'll just tell them stop and let's get to the point. However, at work, you know, I have to find myself, you know, seemingly interested and engaging in all of these conversations that have nothing to do with why I'm there to support them.

Justine talked about a TED talk by Amy Cuddy that has helped her understand the importance of what she refers to as faking and being an extrovert with teachers that she supports. She talked about remembering Cuddy discussing how she felt after being enrolled at Harvard, as if she was admitted by mistake and was not supposed to be there. Justine talked about how she felt similarly in her role as an instructional technology leader at first, and how Cuddy's TED talk advise about faking it until you don't have to fake it anymore rang true for her.

There was a slight pause, and then Justine went on to describe how her very first job, before she began her teaching career, was in retail. Justine shared how her role in that position was to stand at the door, "talking to every single person that walked by… asking him or her if they wanted to try hot cider…with a smile." The annoyance in Justine's voice when she said the word "smile" prompted us both to burst into laughter. Her laughter was rich and heavy with a light squeal at the end. She sighed and said that she supposed that experience was where she first learned to fake it, in retail. Nonetheless, Justine made it clear that she has come to experience many aspects of her

work in education, whether it was being the classroom teacher or being the instructional technology expert in her building, as being that of an actress.

Perceptions of Instructional Technology Leaders

It was time for Justine and I to discuss how she felt others perceive her role as an instructional technology leader. I started by asking her about her typical day. Right away, Justine asked whether or not I was asking about the day she believed she was supposed to have or the typical day she actually has in her leadership role. This suggested for me that her own perceived sense of what she should be doing as an instructional technology leader did not align with what she found herself currently doing.

Justine's candor was invigorating. She talked about not being a morning person and thus, usually arriving late each morning. When asked about the late arrivals and whether or not she has been approached regarding this, Justine explained that the leadership in the building appears unaware and uninterested in the role of the instructional technology leader and how her day is constructed.

She discussed how her day begins with going on a "walk" around the building to check on teachers and their technology needs. She described her process as stopping by each classroom, opening the door, and waving to the teacher to ask if he or she has any technology concerns; however, she said it often becomes "them venting about the issues and concerns that they have with administration and what not." And with that, there was a heavy sigh from Justine. She shrugged a little and continued by saying that during her walks, she often helps teachers who have issues that she can quickly address.

Justine talked about ending her walk each day and making her way back to her office in the school where she would check emails, watch professional development Webinars on educational leadership and instructional technology, curate resources for the

newsletter she creates and sends to teachers on a monthly basis, and create documents to share with teachers. She described working, along with several instructional technology leaders in her department, to develop a district wide professional development course for teachers needing technology endorsement in their licensure renewal process. Justine discussed having appointments scheduled previously to work with specific teachers who requested support as well as attending departmental meetings at the school for various content areas or leading departmental trainings focused on integrating technology within the content. Justine mentioned that she is also careful to address the needs of specific teachers who seem to need "the same thing" week after week:

> So it's either helping them with their lesson plans and uploading to Google drive…or creating tests in Powerschool and accessing [assessment data]… So I see those two to three teachers every single time I'm in their building, helping them with the same exact thing.

Justine's answer to the question about what she feels she spends most of her time doing as an instructional technology leader was striking: "Talking to teachers about stuff that does not relate to technology." Listening to teachers is a huge part of what Justine does in her role as instructional technology leader.

Justine discussed feeling like there is little connection between what her school leadership does and what she is actually able to influence as the instructional technology leader. She shared vignettes about how she felt that the majority of the time, she felt "bombarded" by teachers asking her to help with an instructional technology program that she was not made aware of previously by school or district administration. Justine shared her belief that school leadership makes decisions regarding instructional technology without Justine's input, but direct teachers and instructional staff to her for assistance with the technology based decisions that have been made.

> They used to have 20 computers in a lab. Now the lab has 50 computers in there and the extra ones are not even plugged up because there're not even enough outlets in the room for the extras. The administrator decided to consolidate three labs into one, you know. So, I hear about it when? Again, when there's a problem…after it has already happened, and [the administrator] wants me to clean it up.

In sharing this, Justine's inflection returned to that of being annoyed, and this time, with a hint of anger. Justine described frustration in being in an educational leadership role that does not seem to perceive her as a true, autonomous leader and will not permit her to make decisions or be consulted for important decisions as it relates to instructional technology in the buildings she served. Serving as a "clean up" person for the mistakes that are made in the absence of her consultation seems to undermine the instructional technology leadership role.

Curious to know about the relationship Justine had with the building principals in schools she supports, I asked about her to tell me more about her interactions with school administration. To that topic, Justine expressed experiencing polar extremes in the way her building administrators utilize her educational leadership. She described one of her administrators as "[avoiding] me like the plague." Justine said she rarely spoke to or heard from this administrator until "he has done something that he's not supposed to do and then he wants me to help him clean it up." She described the other administrator as being one who tends to ask her for help with creating technology tools to help her in her role as building principal, citing an example in which the principal asked her to create a Google form survey for her to use with teachers to collect data on their professional development. For Justine, this is outside the scope of what she perceives as her core purpose as an instructional technology leader; however, it is what her building principal

asks of her. Justine talked about the power that principals yield in the district where she works. While she is aware of what prominent organizations like ISTE describe the instructional technology leadership role to be, Justine expressed that in her specific context, the reality of what is possible in the position often rests with the school building leadership and it is a very different role from what is discussed in best practice.

Justine shared how she often does not feel valued by building principals in her role as instructional technology leader.

> In one of my buildings, [the principal] hears me, and then needs verification. So I am not seen as the expert, because if I say, 'Oh, the laptops are coming in. They're going to have touchscreen,' she's the type of person to say, 'Okay, well who's over this project? Oh…I'm going to email them and ask them.' As if what I was telling her wasn't factual. Or if I'm doing a professional development, she's like, 'Oh, okay, what are you doing on formative assessments? So tell me exactly what you're going to be teaching. Like tell me the agenda, the outline, what is the definition that you're going to be providing.' As if I'm not competent and have not been an educator for a million years.

The experiences that Justine shared regarding her interactions with the principals in the schools she serve painted an image of an educator who felt disempowered and disconnected in her role as instructional technology leader with her school based leadership.

Success and Challenges of the Instructional Technology Leader

Justine was very expressive when asked about how she would describe a system with successful instructional technology leadership. Her account of success for instructional technology leadership included a director of instructional technology at the district level who works with and coordinates with the director of curriculum and instruction for the district. Justine explained that whoever is leading the direction of teaching for the district should work hand in hand with the person charged with leading

the direction of technology in instruction. She talked about how this is not the case in her context, which she charges as a potential cause for the disconnection between instruction and technology across her district.

Justine also advised that school district leaders and school building leaders must take part in ensuring that teachers are incorporating technology into their instruction by requiring them to show that technology is embedded throughout their lesson plans. Justine talked about how requiring teachers to show evidence of implementing instructional technology as building principals complete classroom observations and walkthroughs would help shift the culture she has experienced of instructional technology not being a priority for teachers.

Justine referred to the role of instructional technology leader as being one that needs to be revamped and should operate more like a "school based technology coach." For Justine, the leader in this role should be included in planning for school instruction (lesson planning, teacher observations, and teacher evaluations), in decision making for school-based technology purchases, and for determining professional development needs and activities for the school. Justine highlighted that while this is not currently the case in her context, she believes that the instructional technology leadership role should be elevated and recognized as a true leadership role in the building, where the building principals acknowledge the instructional technology leader as an expert and intermediary. Justine shared the fact that her employment contract designated her as a classroom teacher, even though she does not teach any students and is a fully released instructional technology leader that supports several schools with professional development for teachers. According to Justine, this is an area in which her current school district could

improve its acknowledgement of instructional technology leaders. Justine believes the fact that the district continues to classify her position, an instructional technology leader, as a classroom teacher may inadvertently dissuade building principals from soliciting the expertise of the instructional technology leader and indirectly contribute to the culture of instructional technology leaders having a small impact in the schools.

Justine's vision of the successful implementation of instructional technology in schools does not align with what she perceives as the current climate of her school district and the schools she supports. Justine believes it is important to have a leadership director that instructional technology leaders can report to who is both competent in instructional technology and willing and able to serve as a true intermediary between the instructional technology leaders in the district and the director of curriculum and instruction who should be tasked with supervising school principals and instructional specialists. If the director of instructional technology leaders and the director of curriculum and instruction were able to effectively communicate with one another, then they could work to build a vision of education for the district that would be a true representation of a collaboration of ideas for effective curriculum supported by instructional technology rather than what Justine described as disjointed, disconnected systems.

Further, Justine remarked there has to be trust and confidence in the instructional technology leaders selected for the role. She described her current school district climate as one in which instructional technology leaders were discouraged from sending emails in bulk to the teachers they serve. The protocol for Justine's district for communication from instructional technology leaders is to follow a chain of command, sending all

communication to the principal who disseminates information to instructional staff, as he or she deems necessary.

Still, Justine finds ways to communicate with the teachers she serves through her walks each day in the school building and through her impromptu conversations with instructional staff. Justine remarked, "The largest impact I have is the one on one relationships that I [develop] with teachers in my building because I would say the majority of them see me as the expert. They value and looked to me for advise [them] on implementing different things into their classroom."

Emotional Intelligence Scores

Justine had an emotional intelligence score of 5.60, which is quite high on the scale, which ranges from 1-7. This indicates that she generally agreed with statements that indicated good emotional intelligence and generally disagreed with statements that would indicate lower emotional intelligence. Overall, Justine scored the highest on the well-being subscale (6.50), and the lowest on the self-control subscale (4.83). This indicates that Justine more strongly agreed with statements indicating emotional intelligence in well-being and more strongly disagreed with statements indicating emotional intelligence in self-control. Table 2 summarizes Justine's scores on the TEIQue-SF.

Table 3

Justine's TEIQue-SF Scores

Scale	Score
Emotional Intelligence	5.60
Well-being	6.50
Self-control	4.83
Emotionality	5.63
Sociability	6.00

A Portrait of Lily

Setting/Context

Lily did not respond to the first announcement I sent regarding the study. In fact, it was two months and a second announcement before she responded to the call for participants; however, I was excited to have her on board. Lily is known among her colleagues as having a big personality and being unafraid to speak her mind.

When I arrived, Lily was waiting for me at the entrance of the school. She graciously welcomed me into what she referred to as "her school." I could tell that Lily was proud of her school. The building was beautiful and had a look of newness. The school was built just over a decade prior. Flower bushes adorned the walkway. Large, bright drawings made by children decorated the front foyer. As I walked into the building, I noticed how open and cheery the space seemed. Lily opened the door to the main office to let the school receptionist know that she had a visitor. I was asked to sign in using the school's Raptor sign in system. After doing so, I put on my bright yellow visitor's badge and followed Lily to her office.

Walking with Lily, I could not help but notice how clean and organized the corridors of the building were. As we walked through each corridor, she indicated the corresponding grade levels. She also told me that while her office used to be on the second floor next to the school library she liked being placed on the first floor and closer to more of the student classrooms. As we continued to her office, a classroom teacher approached us for help with a SMARTboard. Lily began to ask him questions about the projector bulb and the connectivity of the device. The teacher responded saying that he

couldn't be sure, but he thought he connected the appropriate cables. Lily asked if I would mind making a slight detour to check out the problems he was experiencing in his classroom. Together, we went to the teacher's classroom and looked at the connection together. There was an improper cable connection. After making the correction to the SMARTboard cable connections, the teacher's device worked properly. The teacher graciously thanked Lily, and Lily and I continued to her office.

When we arrived at Lily's office, I glanced around. Lily's office was a small white box with no decorations on the wall, and a row of windows that faced a set of modular units that housed the growing overflow of students that populate the elementary school. It felt cold and closed off in comparison to the warmth of the rest of the building in which we had just toured. There was a desk that Lily shuffled her body to sit behind, and next to her desk were seven iPad carts that were intended to house twenty iPads each, all crammed next to and in front of each other. Some of the carts were closed and appeared lock; however, a few had doors that were slightly opened, and I could see that they were empty. I asked Lily if she could tell me whether or not the iPads purchased for those carts had been reserved by classroom teachers, and she responded that the principal of the school had ordered these carts, but did not order enough iPads for each cart.

I took out my own iPad to begin recording the interview. I scanned the room with my device and muttered about the space and the mobile display board that had a green cloth attached to it. Lily sighed and said "I have no space at all. No space at all." So I asked her to tell me more about how she manages supporting a school in which she feels she has not been given any space to work. She replied, "Well, they have a computer lab [next door], there's a table in there and (the other instructional technology leader) and I,

she's there on Wednesdays, and on Fridays and we (both) will sit at that table or be in the classroom that we're helping." Lily was describing a scenario in which she and another instructional technology leader supported the same school building, and rotated days on a weekly schedule. The room where our interview took place, Lily's office, was in fact a storage space intended to keep technology equipment. There was a small row of windows that faced the walkway leading to a series of modular units where additional classrooms were housed. There were many levels of Lily's physical setting, and I was excited to explore them.

Becoming an Instructional Technology Leader

Because Lily has served several schools in the district she serves, I was curious to know whether or not her varied experiences as an instructional technology leader were similar across buildings. To that, Lily replied: "Every school is completely different." Lily worked at one elementary school for a total of 13 years, first as a classroom teacher, and then as an instructional technology leader. She explained that in this particular school, when she became an instructional technology leader, she felt that her reputation was established because her colleagues already knew her: "…they were not unfriendly to me coming in and doing something [with their class] because they knew who I was, you know what I mean, like that, that barrier wasn't there." She also discussed how the teachers in that building had a required shared planning time, making collaborative curriculum planning a part of the school culture.

In contrast to her first elementary school, Lily discussed how she had to push herself into the classrooms because the teachers were more reluctant to invite her assistance as an instructional technology leader. Lily said, "…one way I earned that one teacher…I won her because I would be in her class all the time, showing [the students]

how to…practice TestNav or whatever they were doing on the computer. I was there to support in some way."

Lily had no formal training as an instructional technology leader, and does not hold an administration endorsement with her teacher's licensure. However, after over a decade working in the role, Lily expressed learning and growing into an instructional technology leader as a continual process. Prior to becoming an instructional technology leader, Lily served as a teacher for pre-kindergarten students. For Lily, the work she did with the school district's youngest learners prepared her for the kind of creativity, flexibility, and patience she believes is necessary in the role of the instructional technology leader.

Qualities of Good Instructional Technology Leaders

When asked about what qualities Lily felt were that of good instructional technology leaders, Lily talked about specific projects she was currently working on with various teachers she supported in her building. She indicated that one of the projects began as a small idea she had with one of the teachers she was supporting, but snowballed into a project that the assistant principal wanted to be displayed at the school's fifth grade moving on ceremony. The assistant principal at Gardner learned about the green screen recordings that Lily helped one teacher create with her class and wanted to expand these recordings for the entire grade level and have them shared as a special presentation for parents and community stakeholders for the school.

The theme for the moving on ceremony at Gardner Elementary would be "Adventure." Lily explained the assistant principal's vision for the technology-enriched project. She said the assistant principal wanted select fifth graders to be filmed using green screen talking about their career aspirations, "She has a couple of children that are

really interested, like one of them wants to be astronaut, which is awesome." Intrigued, I asked her to tell me more about the project, and this is what she shared:

> Actually, um, what happened was one of the teachers I have worked with for a very long time…actually…she and I…decided early on that we were going to work together for project based learning. And she said, 'I have a project that I want them to do. How can you help me incorporate technology into this? I want them to research...give a speech. What can we do to add technology into this?' So that whole class I have been working with before the green screen stuff. We have done a lot of Flocabulary videos [with] their language arts. We've also done…a lot of…like I taught all three [fifth grade] classes how to create a PowerPoint because they [knew] how to start one, but everybody was really involved with making things spin in, jump, and change the colors... So we talked about that and why you would want to not do that and talk to help them get started. So… we infused the technology throughout the whole project. And then this is kind of like the culminating piece of that, the green screen.

Perceptions of Instructional Technology Leaders

Lily smiled often throughout our interview, and when asked about how she felt others perceived her in her role as instructional technology leader, she began sharing stories of how she was able to gradually "win" the buy in of instructional staff members. She shared the following:

> I have been working to get more people involved with things because they do their own kind of technology and they use my resources and things like that, but it's in class. Nobody…[does] as much of the fun stuff because we really don't have that much time…So, um, I've been working really closely with one of the first grade teacher. She has a student teacher that has been with her all year…[and has] kind of taken over her class at this point. And so she's doing great and they were so excited about doing their writing project because of that, so they work on their writing all week long last week and I would go in and check with them and see how it was going and just kinda, you know, egg them on and get them excited. And then yesterday was the magic day where they would do their reading and stuff. And so I brought [their students]…three at a time to do that. It was super fun.

Lily was elaborating about how she managed doing the technology piece with the limited time and resources she has in her role as the school's instructional technology leader. Lily's smile faded when she talked about the realities of making the "magic" happen, "…because I have nowhere to film them…. they bring their lunch and actually we go into

the classroom." She continued and explained that she can only record one student at a time, making this exciting project more time consuming and less far-reaching than it would be if she was provided with more resources.

I asked Lily about whether or not she had considered pushing into the classroom and integrating green screen during class time. Lily responded indicating that she discovered several complications with this approach. She discussed how the classroom setting is often filled with the sounds of learning: chatter, teacher explanations, and student movement. The filming that Lily is most interested in doing with students requires background silence. Further, there is very little space in the classroom to set up equipment for technology. Lily mentioned that to compensate for the lack of space, she has had to become flexible, "I literally throw [the green screen cloth] over their smart board and we go from there."

Other projects Lily shared involved using Google Forms to gather information about student interests in the form of survey. From there, Lily's goal is to also get teachers to teach students how to create their own Google Forms to collect data for classroom experiments. Lily's passion seemed to lie in her desire to help classroom teachers empower students by embedding technology throughout lessons during the entire school year.

Success and Challenges of the Instructional Technology Leader

Lily discussed participating in curriculum planning meetings with the instructional teams in the schools to determine how she can best support the faculty and staff. These meetings influence the success and challenges Lily experiences as an instructional technology leader because they set the tone for how the instructional staff perceives and receives Lily's support. Lily explained that the school grade teams of

teachers meet weekly to discuss the reading and math lessons that they will teach for the upcoming week. During that meeting, Lily listens to the teachers and suggests pieces of technology resources to support the instructional plans discussed. She stated, "…based on what they're doing, I…say use Flocabulary for this or use my PortalPortal for this, try this resource, don't forget, you know, this resource in this area." Whether or not the teachers take the suggestion and use it is at their discretion. Lily's position as an instructional technology leader comes with no authority. Her ability to influence, support, and encourage teachers to embed technology in their instruction encompasses Lily's primary role.

Lily surfaced her focus areas for her work. She shared, "It's kinda hard to get the kids interested in writing. They hate it….so if we can beef that up in some way to make them excited about it, then that's why I tried to do it in language arts because then they want, they want to finish their writing and do a good job…a green screen [video]." Lily talked about her intentions to continually think about ways to engage and motivate student learning.

Lily also talked about the importance of an instructional technology leader being able to insert himself or herself into the classroom as a support for the teacher and students, "You just have to take over, not take their class but take over your space. Say, 'look, I know we, we can do this, we can do this.' And if you keep on, they'll eventually let you in." This persistence is a component that Lily highlighted as being an extremely important factor in gaining success as an instructional technology leader.

Still persistence is not always met with welcoming arms right away. Lily shared an experience she remembered from her first year as an instructional technology leader.

"It was my second school at the time and I had a teacher who really wouldn't let me in the door. She was like, 'I don't really want to do technology. I don't have time for anything that you're going to tell me.' But I won her. It took me like four years… but was always because she knew I was there. I was always willing. I would always say, 'Hey, do you need me?' And then finally she was like, 'Yes, I like what you did in so and so's class."

Reflecting on what teachers need to embrace the support of the instructional technology leader, Lily said "[Teachers] need to feel comfortable with you … [to] let you into their room." Lily emphasized how offering open-ended support positions the instructional technology leader as a support, rather than as a source of evaluation. She reiterated that the instructional technology leader must be willing to exert consistent and constant effort in daily checking in with teachers with "Hey, I'm here. Can I help you with this?" Lily signed, "So I think… that makes the difference."

School climate also impacts the success and challenges of an instructional technology leader. Lily commented, "[School technology] has a huge impact…Inside the building we have the mounted smart boards, which are awesome. Outside of the building we have projectors and document cameras." Lily was describing the school where she currently works. She talked about the school being zoned for 500 students, but was actually serving over 900 students. She discussed the school having to set up modular units outside of the school building to support the overflow of student population. The technology originally housed in the school building has not been duplicated in the modular units. Thus, classroom access to technology differs from classroom to classroom. Lily continued, "Sadly, I don't have any backups and the projectors quickly go [bad]… Everything's very mobile so it doesn't work well. And then they have to have

external speakers and all kinds of things that we [as a school] don't always have to give them so they have to bring their own. I went to the Goodwill and bought as many as I could find…"

The dichotomy between the resources available to the main building and the modular units, trailers, is something that Lily sensed as being a challenge for her role. She shared, "They feel some kind of way in the trailers because they don't have the Smartboard. And, in here…the Smartboards are breaking. They're now five years old and they really haven't had any maintenance at all at all." Lily pointed out that her work as an instructional technology leader is greatly impacted when the technology equipment in the schools do not work properly. She remarked, "I honestly think that [instructional technology leaders] should only be there to support the actual use and not worry about the 'does it work', but I can't support use of something that doesn't work." This impacts Lily's work because she finds herself stepping out of the role of leader and consultant in order to repair or fix equipment, "…oftentimes [instructional technology leaders] wound up having to troubleshoot everything, which is the Smartboard, the document camera, …peripherals… so I wind up having to troubleshoot things."

Lily described having to navigate a very tight course between being instructional technology leader and being viewed as a technician. "So that's problematic…. I think that's the line we all walk. You want to do more instructional things, but you can't win. [Technology] doesn't work, so you wind up trying to help the teacher in every way to make things work, which stinks." I asked Lily if she had any formal training in fixing technology equipment and she shared with me that her expertise with repairing

technology equipment comes from her avid use of YouTube and acquiring information through self-professional development.

Promptly after our discussion, we walked down the colorful hallways of her school building to a large conference room where teachers were meeting for a grade team planning session. There was a large wooden oval table in the center of the room. Lily and I sat near the projector and screen. The teachers from the grade team came in with their notebooks and pens. The instructional coaches for math and reading also came in with their laptops. The math and reading coach gave reports of information from the district. The grade team lead teacher began discussing the reading plans for the week. Lily offered suggestions, to which the teachers smiled and nodded. When the meeting was over, I asked Lily if there was anything she wanted to share with me about her experiences. One of the things she mentioned was the challenge of feeling like instructional technology is viewed as a supplemental aspect of education, as opposed to being integral. She talked about the contrast between how she believes her role is perceived and how she believes the role of the instructional reading and math coaches are perceived. For Lily, education is enhanced when the instructional technology leaders are not only invited to the table of educational planning, but are also valued.

Emotional Intelligence Scores

Lily scored a 5.47 on the 7-point scale, which indicates that she generally agreed with statements that indicate emotional intelligence. Lily scored the highest on the well-being subscale, at 6.50, which indicates that she agreed most strongly with statements related to emotional intelligence in well-being. Her lowest score was self-control (3.67), which indicates that she generally disagreed with statements meant to measure emotional

intelligence in self-control. Table 4 summarizes Lily's results for each scale of the TEIQue-SF.

Table 4

Lily's TEIQue-SF Scores

Scale	Score
Emotional Intelligence	5.47
Well-being	6.50
Self-control	3.67
Emotionality	6.13
Sociability	4.33

A Portrait of Gemma

Setting/Context

Gemma was the last participant to answer the call to participate, agreeing to participate in the study in July 2018. We agreed to conduct the initial interview as a video via Google Hangouts. Though it was summer, Gemma's role as a first time mom filled her schedule. Using video as a means to conduct the interview would allow her to participate and care for her infant son at the same time.

Gemma is a young white woman with blond, wavy hair. She shared her childhood with a military father, and described often having to move around when she was younger. The impact of that experience has made Gemma more aware of and focused on being efficient and flexible. Additionally, at just 28 years old, Gemma is relatively new in her profession as an educator. She began her career early as an instructional technology leader, only having taught three years in the classroom before being promoted to the role of instructional technology resource teacher (ITRT).

I asked Gemma to describe her space at the schools in which she serves. Gemma indicated that she currently serves two schools: Lowe Elementary and Andes Elementary (pseudonyms). She shared that at Andes Elementary School, she has an office space where she is able to keep supplies and kits to assist her in supporting the teachers in the building with educational technology integration. At Lowe Elementary, Gemma shared that she was placed in the room with a copy machine where the behavioral counselors are. She described the space that an instructional technology leader has as being an important element in their work.

The stark differences between Gemma's school buildings seemed to set the tone for the context of her work as an instructional technology leader. For Gemma, it illuminated how she felt perceived in her role as a leader, and was inherently connected to the kind of support she felt she could be able to provide for the school building. Our discussion together would provide more insight into her experiences in those various spaces.

Becoming an Instructional Technology Leader

The instructional technology leader who supported the school where Gemma served as a classroom teacher inspired Gemma's interest in integrating technology. "She was the one actually who used to share a lot of ideas and resources with me and I sort of adapted," Gemma remarked. Gemma shared her experiences as a classroom teacher and how difficult it was for her to adapt to the school culture. Gemma described her experiences in the classroom in the following way: "…when I was teaching in the classroom at Forest Elementary, I kind of felt like the lone wolf, like I didn't really have a lot of support. I didn't have a lot to people to confide in, so I kind of felt like technology was like my 'go to.'" For Gemma, being able to embrace and integrate technology in her

instruction made her stand out. She was attracted to technology because of how confident and competent it made her feel.

The instructional technology leader in her building was instrumental in helping Gemma use technology to make instruction more effective. Gemma shared, "She encouraged me, helped me with my projects, ideas and I sort of just took it from there and ran." After three years of being a classroom teacher, Gemma applied for a position as an instructional technology leader in her building. Since being hired, Gemma has served five years as an instructional technology leader for three elementary schools in the school district.

Qualities of Good Instructional Technology Leaders

When asked what qualities should comprise instructional technology leaders, Gemma emphasized the importance of flexibility and adaptability. She shared, "Adaptable… and understanding…more on the page of not everybody's teaching styles are the same. So being able to accommodate…what you observe while also being able to push and encourage. So being a motivator. Adaptable, flexible, motivation." Gemma paused and thought on the question more. Finally, she added, "…intrinsic motivation as well. Because as we know it's, it's easy to sit back and become a technician, but [it is important] to stay relevant, also be innovative… with the new tools, new curriculum, you know, to stay on top of your game."

Right away, Gemma was discussing the dichotomy between the adaptive, flexible, motivating instructional technology leader and the instructional technology leader as a technician. She spoke about the two roles as being opposite, even counter to one another, rather than complimentary of each other. There was a tone of disdain when Gemma discussed having to take on the role of a technician. For Gemma, the instructional

technology leadership role is about helping teachers explore ways of integrating technological tools and platforms in instruction, and not at all about being responsible for the functionality of equipment.

Perceptions of Instructional Technology Leaders

Gemma shared that the perception of the instructional technology leader varies greatly from school to school. In Gemma's words, "The buildings and their perceptions are very different. For example, at Andes Elementary, Mr. Beak comes to me as an expert. He seeks out advice. He wants to know what I think and promotes me as a trainer and as a leader… So there I feel like I am well perceived." Gemma continued, "On the flip side at Lowe Elementary…I have some strong friendships and relationships…but…while I have strong personal relationships, I don't often get to be perceived in the light and the way I would like in terms of our role." I asked Gemma to describe what has influenced her conclusions about the two schools, and she shared "I'm just there, you know, I have to seek out people separately individually versus approaching the staff at a whole. And you know, this past year, small things like not getting my own name tag on the door when everybody else did…it's kind of like you're here as an itinerant."

Further, Gemma talked about the importance of ongoing professional development. She shared, "I don't think you can be 'over-trained', but I do think you can have too many trainings, if that makes sense. I feel like consistency in professional development would be key." Gemma talked about an ongoing professional development model that was piloted with her department of instructional technology leaders. She shared, "There were…some significant takeaways there." She discussed the component of addressing andragogy, meeting the needs of adult learners, and building effective

relationships with colleagues as being critical in what she believes is the primary role of an instructional technology leader.

Additionally, Gemma shared her need for leadership and guidance for her role as an instructional technology leader. Gemma remarked, "I think that having…quality leadership…not only for our department, but in our buildings too….I think there needs to be communication and true understanding of our role in order for me to be fully effective." Because her role varies from building to building and there seems to be a lack of communication between schools and the district regarding what the role should be, it is difficult for Gemma to assert herself as a leader in any one building.

Success and Challenges of the Instructional Technology Leader

Gemma's explorations of the challenges and successes of an instructional technology leader surfaced her desire for strong leadership in her own cohort. She shared, "… I thrive off as constructive feedback… I needed [it] to come from…someone relevant. I feel like in the past my feedback has been not from a place of growth…just from a place of petty. I think that's the nicest way to say it." Gemma shared some interesting dynamics of her own cohort of instructional technology leaders, but one of the most frequently discussed issues was that of a lack of leadership for instructional technology leaders in her experiences.

Speaking of her experiences among other instructional technology leaders, Gemma shared the following:

> I feel like a lot of times I have to independently seek my own learning opportunities... However, I think it would benefit, you know, to be able to have more collaboration within our group…that would just make not only me stronger but also our group stronger…I think we all should be growing together…

Ultimately, Gemma was addressing her need for a leader of the instructional technology leaders, someone able to corral the group and offer training and feedback to improve the

profession. Gemma continued discussing her views on the power of participating in a professional learning community (PLC) versus showing up to sit in meetings, "I think when we as a group meet, I don't find it beneficial. I feel like they turn into um, excuse my language, bitch fests. I think we complain about everything we can't fix and we sit around and we talk about everybody else instead of talking about ourselves…I think there should be communication and sharing."

Gemma discussed possible solutions to the challenges she surfaced in her experience as an instructional technology resource teacher. She stated, "I think one thing that would help…is time and being a little bit more objective if we meet because we go on for hours and hours about the same thing. And it feels like we don't get to the important things." Getting to the important things, for Gemma, involves having an opportunity to reflect individually and as a group, "I think learning growth and reflection are things that we don't get to…in our group and those should be at the forefront of our… profession in our career and our jobs and our roles." Gemma also discussed how both establishing boundaries and having flexibility could help to strengthen her cohort of instructional technology leaders, "…setting parameters and time would be beneficial because we do work in a school system and things do come up….we have to be adaptable to those and amenable."

Another suggestion Gemma shared involved having an opportunity to increase the relationships she had with teachers in the buildings she served. Gemma shared that she enjoyed "being itinerant and kind of floating place to place and seeing new faces every day," and at the same time, she talked about how essential she felt it was for the

instructional technology leader to be able to build relationship with teachers. She shared the following:

> …being in one building would be awesome. I mean just to be there all the time and be so hands on and so involved…because while I feel like the teachers who I have close relationships with and train and work with…frequently, they're like, 'Oh, okay, we didn't finish tonight. That's fine. We'll finish up on Friday when you come back.' But, for teachers, it's like a, 'Well, you're not going to be here and then spring break is happening, and then...' And it's easy to defer and to continue to push off, you know, because when you're out of your comfort zone, of course you're not jumping at it to…just dive head first into something that's new, especially when you have so much on your plate already. So the consistency and them knowing that we're dependable, I think would also probably…increase, you know, um, the outcomes of promoting instructional technology.

For Gemma, assigning an instructional technology leader to one building as opposed to multiple buildings is a critical step in ensuring success of the role.

Emotional Intelligence Scores

Gemma scored slightly higher than the other participants, at 5.80. This indicates that she generally more strongly agreed or disagreed with statements that related to good or poor emotional intelligence, respectively. Gemma, too, scored the highest on the well-being subscale and the lowest on the self-control subscale. This indicates that she generally more strongly agreed with statements that indicated emotional intelligence in well-being, and more strongly disagreed with statements that indicated emotional intelligence in self-control. Table 5 presents Gemma's full scores.

Table 5

Gemma's TEIQue-SF Scores

Scale	Score
Emotional Intelligence	5.80
Well-being	6.50
Self-control	4.67
Emotionality	6.38
Sociability	5.33

Emerging Patterns and Themes

The following four patterns and themes emerged through the interviews and shadowing participants in their work as instructional technology leaders: support, adaptability, relationships, and influence. Table 6 lists the major themes and sub-themes.

Table 6

Major Themes from Analysis

Theme	Sub-Themes
Support	Ongoing, quality professional development opportunities Participating in a respectful and intentional professional learning community Seeking guidance and feedback from supervisory leadership
Adaptability	Remaining flexible and willing to adapt to varied school climates Moving beyond comfort zones
Relationships	Developing and sustaining relationships with teachers and administrative teams Listening and being responsive to the needs of teachers and administrators
Influence	Demonstrating expert knowledge in instructional technology Being given responsibility for and leadership with the vision of instructional technology in the school

Support

Each of the instructional technology leaders' portraits surfaced the concept of support. They each described support as being a key factor in the work they do with classroom teachers. Justine talked about doing "walk throughs" where she would start

each morning with a walk around the building to assess teacher's technology needs. Lily talked about how the many projects she embarked upon with teachers were developed as a response to teachers asking for support with a teaching activity. Gemma discussed the importance of being able to learn what teachers' needs and adjusting the help provided to meet those needs.

It is an interesting juxtaposition how the instructional technology leaders who provide support to teachers as a primary function of their role all expressed feeling a lack of support for their work in implementing and integrating technology in their schools. Justine was surprised to learn that in her new roles as an instructional technology leader she would not receive the amount of support she did as a classroom teacher. Gemma felt that she did not have the support of her direct supervisor. Lily discussed not being provided a space to adequately work in her role. The instructional technology leaders in this study were all concerned about support, and discussed it as vital to their work as leaders.

Justine described feeling as if her supervisors were unwilling to provide her with the financial resources for the professional development she felt she needed to grow as a professional development. Justine and Gemma both referred to having to get training on their own time and sometimes with their own resources to remain efficient in their roles.

Gemma also offered that there was a need for strong leadership of instructional technology leaders. She described the importance of having a leader who could influence leaders and provide training and feedback to help instructional technology leaders grow. Gemma also discussed how important building a respectful climate, a PLC where individuals are solution focused and supportive of another.

Further, Gemma shared that she felt her leadership role was not necessarily respected as a vehicle for pushing instructional technology practices forward in the buildings she served. Gemma described how she did not feel like she was a part of the team in one of her school location assignments because she had not been designated a space in the same way other instructional staff had. This feeling was echoed in Lily's interview as she commented from the storage closet that was assigned as her office, "I have no space at all. No space at all."

Lily, Gemma, and Justine all discussed support as being vital to their work, but also discussed feeling as if they each have very little control and consistency with getting support in their roles. It is also interesting to note that each of the three instructional technology leaders scored lowest in the domain of self-control on the TEIQue assessment, which is about one's perception of one's self-control. Perhaps their perceptions about the lack of support they receive in their roles as instructional technology leader is influenced by their own perceptions of their emotional aptitude for self-control and consistency.

Adaptability

In Lily's words, "Every school is completely different." All three instructional technology leaders described having to be flexible and adaptable in their work. Justine referred to this flexibility as "faking." She described having to move from being more socially reserved to being more willing to initiate social exchange with teachers with the intent of connecting and setting up an entry point to discuss ways to integrate technology in instruction. Gemma also talked about how it important it is to be "adaptable… and understanding…more on the page of not everybody's teaching styles are the same." Lily described being able to hear the learning objectives discussed in common planning

meetings between teachers of the same grade team and sharing ideas that adapt and incorporate technology into existing curricular plans. This adaptability appears to be a tool that each of the three instructional technology leaders relies on in their work.

Relationships

"…being able to develop relationships with people I think gets you further than your competencies sometimes," remarked Justine. This sentiment was one that was discussed by each of the two instructional technology leaders in this study. Lily shared, "I have been working to get more people involved with things." She described the importance of taking the time to build lasting relationships with teachers (some relationships took years to form) so that they could feel comfortable with her enough to engage in instructional technology integration initiatives with her. Gemma discussed at length how her relationship with the school building leader and his perception of her as an educational technology expert propelled the perception of her role as instructional technology in the building with instructional staff.

According to the participants, relationship building seems to involve two things: (1) a willingness to be persistent and (2) a willingness to insert oneself into the classroom as a support for the teacher and students as needed. In Lily's words, "You just have to take over, not take their class but take over your space…and if you keep on, they'll eventually let you in." This "space" that Lily referred to encompasses the influence that the instructional technology leader possesses. Because the instructional technology leader does not have legitimate power and cannot mandate professional development, owning the "space" that is the ability to persuade, influence, and sell technology integration is integral to the work of instructional technology integration. Each

participant identified maintaining persistence in connecting with teachers as being a key in instructional technology leadership.

Influence

The instructional technology leaders in the study all talked about the power of influence and its role in their work in educational leadership. Justine discussed feeling frustrated and having a lack of agency because she saw little connection between with what her school leadership does and what she is actually able to influence as the instructional technology leader. When I shadowed Lily in her role as instructional technology leader, I observed her listening to the teachers as they were planning and suggesting pieces of technology resources to support the instructional plans discussed; however, she remarked that whether or not the teachers take the suggestion and use it is at their discretion. Gemma discussed a dichotomy between how teachers perceive her in one building to the next and contributed this shift to the building principal's attitude about her role as instructional technology leader.

Summary

Chapter 4 discussed the emerging themes of the study using evidence from the portraits of each instructional technology leader presented in this study. Through interviews and observations, portraits were developed to illustrate the perceptions of instructional technology leaders and the factors they saw as vital to their work. The themes of support, adaptability, relationships, and influence were present in each of the portraits. In chapter 5, I will present the study summary, implications for professional practice and theory, recommendations for future research studies, and my conclusion.

Chapter 5: Conclusions

Introduction

The purpose of this study was to capture the experiences of the instructional technology leader. This study focused on addressing the following research question: How do instructional technology leaders their own emotional intelligence (EI) and the role EI plays in the implementation and integration of instructional technology in the schools they serve? Former United States Senator Nancy Kassebaum once said "There can be infinite uses of the computer and of new age technology, but if teachers themselves are not able to bring it into the classroom and make it work, then it fails." This quote conceptualizes the importance of bridging a gap between educational technology and the classroom teacher's use of technology. At the helm of bridging this gap is the instructional technology leader. This study focused on the instructional technology leader's role within the school as an agent of change and an integrator of technology in education. This research illuminated areas in which instructional technology leaders believe themselves to be most influential, as well as the areas in which the technology leader feels limited within the role.

Emotional intelligence (EI) is the ability of individuals to recognize their own, and other people's emotions, to use emotional information to guide thinking and behavior, and to manage emotions to influence environments or achieve goals (Coleman, 2008). Emotional intelligence has been recognized as a factor in success with both building relationships and enhancing leadership (Coleman, 2008). Exploring the nuances of emotional intelligence in the role of instructional technology leaders has the potential to lead to a better understanding of how individuals in educational leadership roles that

traditionally lack authoritative power both harness and utilize personal power to influence positive change in the school environments they serve.

Using the portraiture methodology, interviews, and shadowing participant experiences were used to support the process of unearthing the experiences of the instructional technology leader. The chapter begins with an exploration of the four themes which were surfaced in this research: support, adaptability, relationships, and influence. The chapter then presents a summary of the three key findings developed from the four themes established in this study: (1) Instructional technology leaders practice self awareness; (2) Instructional technology leaders practice adaptability; and (3) Instructional technology leaders rely on the culture and climate of the buildings they serve to build relationships with teachers that have the potential to influence positive change. Following the summary of key themes and findings, this chapter contains implications for theory and practice, implications for future research, and a conclusion.

Key Themes

How do instructional technology leaders perceive their own emotional intelligence (EI) and the role EI plays in the implementation and integration of instructional technology in the schools they serve? When instructional technology leaders were asked about their roles, they surfaced stories capturing their work in their field. These stories often pointed to instances in which the instructional technology leader were either mobilizing or grappling with balancing emotional intelligence. After the interview transcriptions and survey results were reviewed, the data were organized by the four recurring themes surfaced across the responses from the three participants in this study: support, adaptability, relationships, and influence.

Support as a theme is concerned with the instructional leaders' preoccupation with providing help to teachers. Lily described one of the many projects she was currently working on as one that surfaced after a teacher came to her and said to her "I have a project that I want [the students in my classroom] to do. How can you help me incorporate technology into this?" Gemma discussed her perceptions of the instructional technology leader role when she was working as a classroom teacher this way: "…when I was teaching in the classroom…I kind of felt like the lone wolf, like I didn't re ally have a lot of support…[my instructional technology leader} encouraged me, helped me with my projects…" Justine discussed starting each morning with a "walk around the building to check on teachers and their technology needs…and will help a few teachers along the way who have some issues I can quickly address." Justine also talked about going into her office and "curating resources" for newsletters that she develops and provides to staff members as guides for using a variety of technology resources. Justine also described making appointments with teachers to provide trainings on concepts that have requested help with. The participants all described providing support as being a fundamental part of their role as leaders.

Adaptability as a theme highlights the flexibility needed for instructional technology leaders. Each of the participants surfaced instances in which they felt constricted by an environment prone to constant change and barriers. Justine remarked, "…the majority of the time [I feel] bombarded by teachers asking me to help them with some program that I've never heard of and did not know that they were using because no one ever told me…" When discussing implementing technology in the classroom with teachers, Lily added "…[teachers] don't do as much of the fun stuff because

we really don't have that much time…" Gemma referred to the importance of adaptability when discussing what she believed were critical characteristics of an instructional technology leader, "Being adaptable…understanding…being able to accommodate.

The relationship theme is about the importance of the technology leader in cultivating connections with school staff. When asked what qualities instructional technology leaders needed to have Justine commented that having interpersonal skills "…gets you further than your competencies." Later, she added, "I feel like the largest impact I have is on the one on one relationships that I work with teachers in my building because they…I would say the majority of them see me as the expert and so they both value and look to me for advice on implementing different things into their classroom." While Gemma also surfaced relationships as an important factor in her role as instructional technology leader, she discussed the importance of her relationship with the school building principal as contributing to the way classroom teachers perceived her role: "[At one school, the principal] comes to me as an expert. He seeks out advice. He wants to know what I think and promotes me as a trainer and as a leader….On the flip side, at [another school], while I have some strong friendships and relationships…I don't often get to be perceived in the…way I would like in terms of [my] role." Lily discussed her practice of building relationships as often having to become a "push in" process. In school buildings where common planning time for teachers was not available, Lily described showing up during class time and presenting activities and lessons she would lead with students. She described how teachers would hear about the work she was doing and seek her out based on her "pushing in" and establishing relationships with both teachers and students.

Influence as a theme is about the instructional technology leader's ability to persuade school staff to not only believe that implementing technology is an integral part of 21st century instruction, but that classroom teachers have the capacity to do so effectively. Each of the three participants discussed working with school staff members who seemed reluctant to using technology in the classroom, and each of the participants shared a different perspective on their approach to being an influence in their schools.

Lily described at length how her method of "pushing in" to develop relationships with teachers did not always find immediate success, but that her persistence seemed to always improve her value to and relationship with teachers:

> …the teacher…really wouldn't let me in the door. She was like, 'I don't really wa nt to do technology. I don't have time for anything that you're going to tell me.' B ut, I won her. It took me like four years…and then she was calling me all the time…but it was always because she knew I was there. I was always willing. I wo uld always say, 'Hey, do you need me?' And then finally she was like, yes, I like what you did [in] so and so's class…I think that the important thing for me was just to keep being persistent (laughs) [and] don't let them forget you.

For Lily, hearing a 'no' did not automatically mean 'never'. Instead, she saw it as an opportunity to present herself as a solution to the perception that implementing technology in the classroom is too challenging. Lily resolved to being present in the face of a teacher's 'no' and found that with time, teachers began more willing to accept her support.

For Gemma, influence is directly connected to knowledge and innovation. Gemma described the instructional technology leader's role to be one that required creativity and a desire to be a life-long learner. Constant growth in technology requires an ongoing pursuit of skills in the latest technology to support classrooms. She shared, "…as we know, it's easy to sit back and become a technician, but [instructional

technology leaders should]…stay relevant, also be innovative…with the new tools, new curriculum, you know, stay on top of your game." Gemma shared that it is not enough to be able to fix a technology problem, but that the instructional technology leader needed to be able to share and train teachers to use the latest and most current educational technology in a way that transforms and improved teaching. Gemma felt her efforts to do so were much more effective in the school placement where the school building leader accepted her as the instructional technology expert in the building and allowed her to operate in the role as the "trainer" for the staff.

On the other hand, Justine felt limited in her ability to influence instructional technology in her school because of the school principal's perception of her role as instructional technology leader. Justine shared "[In] one of my buildings, [the school principal] hears me...and then needs verification. So I am not seen as the expert…if I say, 'the laptops are coming in, they're going to have touchscreen' she's the type of person to say, 'Okay, well, who's over this project? I'm going to email them' as if what I was telling her wasn't factual." Justine's words expressed the sense that her ability to influence technology integration in her school had less to do with her own leadership ability and was inherently tied to the school building leader's propensity towards accepting and respecting her role as the instructional technology leader.

There were distinct differences between the way Lily, Gemma, and Justine perceived their abilities to influence the use of instructional technology in the schools they serve. What causes this divide may be attributed to a variety of factors that cannot be established with certainty in this research study; however, these connections should be explored in future, follow up studies.

The participants' results of the TEIQue survey surfaces more dimensions to the themes of support, adaptability, relationships, and influence in the instructional technology leader's work. Each of the three participants scored the same for well-being on the TEIQue-SF survey. Lily (who reported participating in grade team meetings and providing suggestions for staff that were taken at their own discretion) scored the lowest in self-control, while Justine (who reported that she communicated with staff by developing instructional technology newsletters and resources to disseminate to staff members) scored the highest. Gemma (who reported her school building leader as promoting her as a technology expert and trainer for the staff) scored the highest for emotionality, while Justine (who reported that she felt little agency because of she did not feel like the school building leader perceived her as the technology expert in the building) scored the lowest. Justine (who reported that she checked in with teachers each morning and made appointments with teachers based on concepts they requested help with) also scored the highest in sociability, while Lily (who reported pushing in to classrooms and exerting herself as a support for teachers) scored the lowest.

The participants' TEIQue scores could have a relationship with the way in which each participant perceived the support they both give and receive in their roles, their ability to be adaptive, their propensity to develop and cultivate relationships in their schools, and their beliefs about the influence they hold in their positions as instructional technology leaders. Too, because the TEIQue-SF is self-reported data, there is always the possibility that each participant could report what they felt they should report rather than how they actually felt. This research study cannot determine for certain any correlations between any of these factors because it is portraiture intended to be an

exploration of the experiences of the participants, and was not designed to establish any relationships with any of the factors and themes surfaced. Exploring the correlation of these factors would be among the many next steps of future studies of the instructional technology leadership role.

These four themes (support, adaptability, relationships, and influence) established the three key findings of this study. Instructional technology leaders in this study were found to be self aware, practice adaptability, and use relationship building as a way to affect positive change.

Key Findings

The first key finding from this study was "Instructional technology leaders practice self awareness." Instructional technology leaders participating in this study were both self-aware and communicative of the supports needed for growth and efficacy in their position. Authentic Leadership theory (George, 2003) is about leaders discovering who they are and understanding how their character and their ability to cultivate their characters can greatly impact their work as leaders and the organizations they serve. Authentic Leadership theory explores how a leader's ability to cultivate his or her character greatly impacts one's leadership of the organizations served. Authentic Leadership theory also asserts that self-awareness lends itself to the leader's ability to build honest relationships with his or her followers to harness and influential power in a way that promotes positive systems of belief and relationships within the organization.

The participants in this research seemed to be self-aware. Gemma, Lily, and Justine all were able to describe the choices they made as instructional technology leaders and were open about the factors that influenced their beliefs and behaviors in their roles.

Still, when it came to building relationships in an authentic way, Justine described feeling compelled to "fake it" for the sake of teachers she was supporting. She was self-aware of the choice she made to act differently in her role as instructional technology leader from the way she would outside of work, but disclosed the fact that her self awareness did not always foster authentic behavior.

The second key finding was "Instructional technology leaders practice adaptability." Like Justine's decision to "fake it" in order to build relationships with teachers, instructional technology leaders participating in this study highlighted the ability to adapt to environments as critical to the work of the instructional technology leader in influencing technology integration in the classroom. Adaptive Leadership theory (Heifetz & Linsky, 2002), is about individuals and organizations adapting and thriving in challenging environments by embracing the process of change through determining the essential from the expendable, determining the difference between technical change (for clearly defined problems with solutions) and adaptive change (for problems that require change in belief systems and ideologies).

Gemma discussed the dichotomy between the two school locations that she supported, and how those differences play a role in how she is able to carry out her role as instructional technology leader. In the school placement where Gemma felt the principal referred to her as the school's technology leader, she referred to herself as a trainer; yet in the other school location where she did not expressed the same support, she noted that there was a change in her interactions with teachers. Adjusting to those differences across school locations is key for the instructional technology leader who often serves multiple schools with a variety of needs and expectations. Frazier and

Bailey (2004) referred to the instructional technology leadership role as a "position without a protocol" by Frazier and Bailey (2004). Even though the participants worked in the same school district, they each expressed a variety of approaches and expectations for their role. The need to be able to adapt and become what the environment needs was expressed by each participant

The third key finding was "Instructional technology leaders rely on building relationships with teachers to influence positive change." The instructional technology leaders participating in this study surfaced that their ability to influence technology integration was supported by the ability to build and maintain relationships with teachers in the classroom. Each instructional technology leader shared experiences with learning how to build and foster relationships with colleagues to influence technology integration. While teachers may not immediately receive the support that an instructional technology leader offers, persistence can help establish the trust needed to build relationships that lead to partnerships with teachers.

Lily discussed her method of "pushing in" and remaining a persistent presence for teachers, even more reluctant educators. Lily found that when she was able to provide support in the classroom by leading activities with students or offering to provide support for integrating technology with classroom projects, teachers who may have been reluctant at first were more willing to seek Lily's help after watching her in action with other teachers and their students.

Primal Leadership theory "…makes a case for emotionally attuned leaders and why they bring out more in their employees than commanding and pace-setting leaders" (Goleman, Boyatkis, & McKee, 2002). Primal Leadership theory is a framework for

leaders that operate outside of the desire to or, in the case of the general instructional technology leadership role, the ability to command action from employees or other organizational members. Primal Leadership theory contends that leadership is best enacted when the leader is not only in tuned with his or her own emotional needs and can adjust his or her character to meet the needs of the situation (as in authentic leadership) but it is also able to assess and adapt for environmental changes (as in adaptive leadership theory).

As the participants shared their stories about their work in the instructional technology leadership field, it was evident that each of these leadership theories (authentic leadership theory, adaptive leadership theory, and primal leadership theory) were embedded in their practices. The participants never identified any of these theories of practice; however the narratives of each instructional technology leader had echoes of the aforementioned leadership theories woven throughout. There was no one specific leadership style that could be identified that would encapsulate the experiences of all three participants; rather, each participant seemed to borrow traces from each leadership style. This notion supports the conceptual framework introduced in Chapter 1 and explored in Chapter 2 of this research document.

The relationship between Adaptive Leadership theory, Authentic Leadership theory, and Primal Leadership theory and how they connect to emotional intelligence is illustrated in the figure "The AAP Conceptual Framework."

The AAP Conceptual Framework

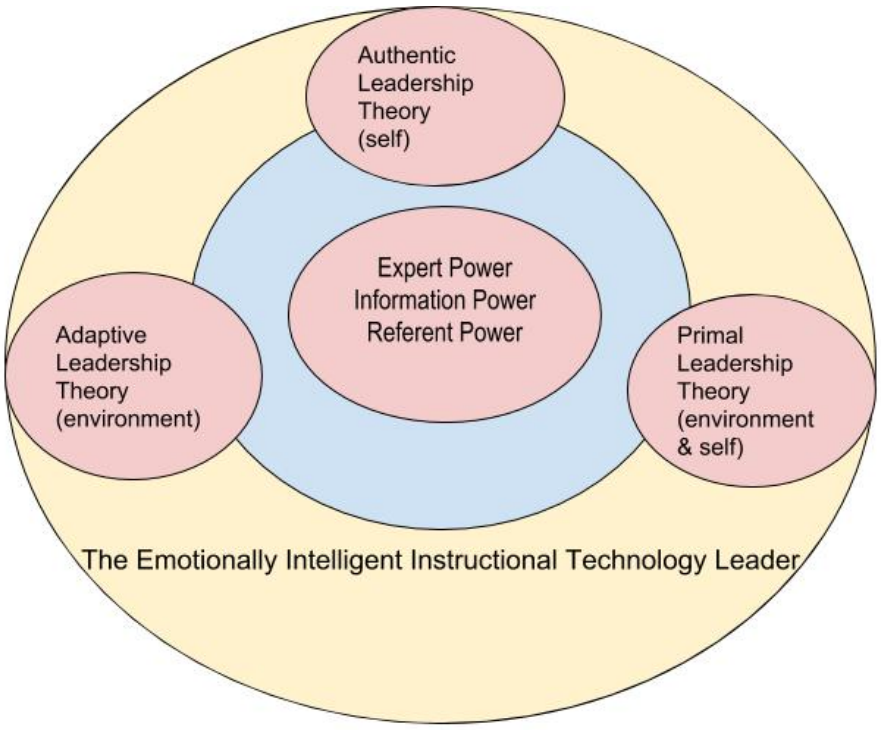

Figure 4. The AAP Conceptual Framework. This figure explains the relationship between Adaptive Leadership theory, Authentic Leadership theory, and Primal Leadership theory and how they work together to inform the Emotionally Intelligent Instructional Technology Leader.

This AAP Conceptual Framework demonstrates a leadership triad model for informal or non-traditional educational leadership roles that lack the coercive, legitimate, and reward power bases and are instead supported by expert, information, and referent power bases. The AAP Conceptual Framework supports the key findings in this research. The participants' narratives illustrated the need for the instructional technology leader to support the needs of those served, to be able to adapt to various environments and expectations, and to be able to build authentic relationships to affect positive change. The AAP framework suggests that the leader is supported by using this triad of methodology (supported by expert, information, and referent power) for performing the functions within the role. The relationship is non-linear and non-directional, indicating

that the instructional technology leader can lead from any of the three leadership models and move in whichever direction best supports the situation and the teacher served.

The aforementioned key findings support the need to focus on three key elements for the instructional technology leader: communication, self-reflection and awareness, and optimism. Each of the participants talked about how important it was to communicate with the members of the organizations they serve (Justine's newsletters to staff, Lily's planning conversations with teachers, and Gemma's confiding in the instructional technology leader who supported her during her first year of teaching.) An instructional technology leader relies on his or her ability to communicate effectively with others. Emotional intelligence is set a part from many leadership theories and models in that it is places self-awareness at the core. Informal leaders such as instructional technology leaders must be self aware and able to reflect on their actions with others because the guiding source of power that these leaders wield are primarily in their ability to make connections with others. Leaders who are not self-reflective will struggle to understand the relationships they have with others around them and how to improve on those relationships. Wells's (2015) work, inspired by Boyatkis and McKee (2005) who coined the term resonant leadership, discussed the importance of leaders demonstrating emotional intelligence, compassion, and spreading hope across the organization. As Lily shared her experiences of working with teachers who are reluctant to use technology, persistence must be met with a degree of optimism to affect positive change.

This study also unearths two important concepts for school building leaders serving as principals to consider when working with instructional technology leaders: (1) how to build leadership capacity and (2) how to leverage leadership.

Gemma discussed at length the need for instructional technology leaders to be "at the top of their game." In order for instructional technology leaders to possess the kind of skill and leadership that can be leverage for the betterment of the school, there has to be consistent and ongoing, high quality professional development made available to the instructional technology leader. In both existing literature as well as the findings in this study, instructional technology leaders discuss having to seek out professional development experiences on their own time. Principals should be aware of this and be prepared to address this issue head on by providing instructional technology leaders ample support with the time needed to participate in professional development. Principals should be encouraged to conference with the instructional technology leader in the building and develop a plan together that provides a path towards continued professional knowledge and growth. Doing so ensures that the instructional technology leader has the capacity to build others and lead the vision of technology for the school.

Justine, Lily, and Gemma all discussed wanting to have a greater impact in their schools, but feeling like their perspectives were often uninvited to larger conversations. Justine specifically recounted feeling like she was consulted after decisions had been made, and described those decisions as being poorly made decisions. She described feeling like she was summoned to clean up a mess that had been made. Based on the findings in this study, there are four recommendations for

school administration seeking ways to leverage its use of the instructional technology leadership in the building: (1) School administration may want to consider how it might be beneficial to make the instructional technology leader in the building to make the instructional technology leader in the building an integral part of instructional decision making; (2) Include instructional technology leaders in academic and instructional planning; (3) Ensure that instructional staff members include instructional technology leaders in curriculum planning; and, (4) Consult instructional technology leaders for decisions regarding creating a vision for technology for the school, making technology purchases for the school, and determining technology use in the school. In sum, school leaders can work to leverage the instructional technology leadership in the building in a way that maximizes the benefits of technology for the betterment of the school.

Implications for Theory and Practice

Digital technology is now a global staple in classrooms; therefore, school leaders must be able to navigate technology innovation and use to prepare students for their tomorrows (Raths, 2013; Skophammer & Reed, 2014). While traditionally the building principal has been the school's leader, supporting leadership roles have become necessary to ensure implementation of a variety of aims (Fullan, 2014; Lashway, 2012; Spillane & Lee, 2014). One such role is that of the instructional technology leader, one who serves as a coordinator and manager of the use of instructional technology within a school building. This instructional technology leadership position can be challenging because in many instances the title lacks the authority and legitimate power that the traditional school leader position holds; thus, the instructional technology leader often relies on

building trust and relationships with faculty and staff, skills that are grounded in emotional capabilities and understandings. It is not enough for an instructional technology leader to be a great technology teacher and avid user of digital tools. The instructional technology leadership role requires skills belonging to that of any traditional, formal educational leadership role.

This research uncovered three key findings regarding instructional technology leaders and their perceptions of their roles: (1) Instructional technology leaders practice self awareness; (2) Instructional technology leaders practice adaptability; and (3) Instructional technology leaders rely on building relationships with teachers to influence positive change. Developing these portraits gave me an opportunity to explore the perceived realities of the instructional technology leadership role, a role that relies on the ability to influence change despite having the authoritative power to direct change. The narratives of the participants in this research confirmed the AAP conceptual framework developed during this research that purports that leaders who must rely more on expert, referent, and informational power possess characteristics captured by authentic leadership theory, adaptive leadership theory, and primal leadership theory. The implication of these findings is not only contribute to the gap that exists for literature addressing informal leadership roles, but also provide a possible framework for understanding how leaders leverage their influence in the absence of legitimate power.

Because the instructional technology leadership role requires an understanding of how to leverage relationships within the organizational body, how to practice self-awareness, and how to adapt to environmental changes to exert positive change, it is critical that instructional technology leaders are trained and equipped with leadership

skills. Currently, the only pre-requisite for becoming an instructional technology leader is being licensed teacher; however, this research implicates that more preparation and skills may be required for this leadership role. The implications in this research suggest that instructional technology leaders must be able to have a deeper understanding of oneself as a leader, various frameworks of leadership styles from which to borrow, and a non-traditional ways of connecting with organizational members.

Many researchers have worked to capture the essence of school leadership and those attributes that can be linked to success. In fact, according to Leithwood et al. (2006), nearly every successful school principal draws on a shared pool of leadership methods. Leithwood & Reihl (2003) and Leithwood et al. (2006) suggest the educational leader has to be able to do four important tasks: 1. Create and establish a vision. 2. Understand and develop people. 3. Re-design the organization with a culture that matches the shared vision. 4. Manage the education system and environment. Leithwood et al. (2006) also suggested that the difference in leadership effectiveness stems from a small number of personality attributes: flexibility (requiring adaptability), optimism (requiring self awareness), and the ability to motivate others (requiring being able to build relationships). Russell (2008) asserted the following three characteristics as being related to positive emotional intelligence (enthusiasm and engagement with work): collaborative leadership style, a strong work ethic, and alignment of personal and organizational missions. Pelig (2012) suggested that school leaders must be aware of their professional environment and referred to this awareness as "contextual literacy" which includes understanding the school's typical behavior, values, social and interpersonal dynamics, organizational structure, history, politics, economic factors, and school policy. This

contextual literacy helps the leader to be able to reflect, adapt, and connect with members within the organization to affect change.

Leithwood, et al. (2006) suggested that the difference in leadership effectiveness stems from a small number of personality attributes: **flexibility** (requiring adaptability), **optimism** (requiring self awareness-authenticity), and **the ability to motivate others** (requiring being able to build relationships-a primal leadership). Merging the three leadership theories (adaptive, authentic, and primal) provides a complete view of the type of effective leadership Leithwood suggested: one that is necessary for the informal leadership role, is flexible, and does not rely on one power source or one modality of action. The APP Conceptual Framework portrays the three leadership theories and their relationship with one another as a circle….where adaptive leadership flows into authentic leadership which flows into primal leadership and the circle is never ending, multi-directional, and surrounding the bases of power that are held within these three leadership theories: expert, information, and referent power. In other words, the three leadership theories flow from one leadership theory to the next depending on the stage of leadership that the instructional technology leader has entered…where the goal for the instructional technology leader is to continually find balance within the AAP to meet the needs of the organizational members they serve.

The implication for theory and practice within this research is that non-traditional, informal educational leadership roles like the instructional technology leader are supported by the same pool of school leadership theories and models as traditional educational leadership roles such as the building principal. For this reason, it may be

beneficial to require instructional technology leaders to be licensed and trained school leaders. Being able to explore various facets of leadership through the lens of the various bases of power would support non traditional leaders in being able to adopt the leadership mode that would best fit the school context and needs.

Implications for Future Research

This research is but a fraction of a much broader field of study. The findings in this study leave questions that should be addressed in future research to further inform leadership roles that are not supported with legitimate power. This informal leadership category includes that of the instructional technology leader; however, it also includes educational leadership roles that are growing within the field. These roles include instructional coaches, teacher mentors, grade team and/or department lead teachers, instructional specialists, etc. These roles often do not hold authoritative power and generally do not require the acquisition of a license in school leadership and administration; however, those in these roles are tasked with influencing positive change in those that they lead (Masullo, 2017). Future research studies could work to address this growing leadership dynamic to build upon the conceptual framework surfaced in this work.

Because this study was limited to three instructional technology leaders, future studies with a larger participant pool could potentially support a deeper understanding of the complexities of the instructional technology role. The participants in the study shared the same school district; however, broadening the participant pool so that it encompassed more than one school district would allow the researcher to explore school district as a factor in the way in which participants perceived their roles and their own

emotional intelligence. Extending this study to gather data from more instructional technology leaders would also likely yield more transferable results.

The data collected in this research study was done over the course of about eight months. Following the practice of instructional leaders in their settings for a full academic year or longer would more than likely give the researcher a much more in depth understanding of how instructional technology leaders harness emotional intelligence to lead. Increasing the observations to encompassing more than one may also provide a much richer narrative for each participant.

Though the participants varied in age, race, and level of experience in the field, the three participants in this research study were all female. This homogeneity within the sample in this research is a limitation that could be eliminated in future studies. Extending the study's sample size and demographics with purposive sampling could potentially allow the researcher to explore the role that variables like race, gender, years of experience as a classroom teacher, years of experience as an instructional technology leader, degrees and/or certifications earned, etc. play in how instructional technology leaders perceive themselves and their emotional intelligence.

The TEIQue-SF assessment was used as an instrument in this study. The instrument is the short form version of the much larger instrument TEIQue assessment. Utilizing the TEIQue assessment rather than the TEIQue-SF assessment would provide much more information about the way in which the instructional technology leaders reported their perceptions of their own emotional intelligence because the assessment captures with greater detail scores and indications for those scores across the domains of the assessment rather than the summary provided with the TEIQue-SF tool.

Given how much Lily, Gemma, and Justine talked about the relationships they had with both administrators and teachers, future research could address the relationships between informal leaders such as instructional technology leaders with organizational members such as teachers and/or building principals. Masullo (2017) researched the extent to which instructional technology leaders were able to identify the classroom teachers who identify themselves opinion leaders who are able to serve as change agents by modeling technology integration in their classroom practices. Masullo (2017) surveyed both instructional technology leaders and teachers to determine how they each perceived their roles and the impact of their roles in the learning environment. Similarly, there is much to be learned by the stories of stakeholders who are in partnership with the instructional technology leader. Gathering data from both administrators and classroom teachers in combination with the instructional technology leader would further inform the delicate work of the informal leadership role.

The context of the instructional technology leader can vary from school district to school district and from state to state (Masullo, 2017). Further research on the context of the instructional technology leader is recommended. Exploring what effect the number of schools and/or the grade level(s) supported by the instructional technology leader have on the leader's perception of his or her role would certainly provide an even deeper understanding. Perhaps comparing instructional technology leaders who are based within schools with instructional technology leaders who are centrally based may yield a broader view of the impact a leader's context has on how he or she perceives leadership within the role. Additionally, exploring the depth of technology and the extent to which technology is available in the school(s) supported by

the instructional technology leader is an important factor in defining the leader's context.

Exploring other theoretical frameworks may also provide greater insight into the role of the instructional technology leader. Kouzes and Posner (2007) coined the phrase "leadership is a relationship" in their trait theory leadership model. Perhaps the trait theory leadership model and how it resonates with the experiences of instructional technology leaders would compliment the case for the need for emotionally intelligent informal leadership. In addition, Leithwood and Riehl (2003) and Leithwood et al. (2006) suggested the educational leader has to be able to do four important tasks: 1. Create and establish a vision. 2. Understand and develop people. 3. Re-design the organization with a culture that matches the shared vision. (adaptability) 4. Manage the education system and environment**.** In many ways, the aforementioned four items indicate abilities encapsulated by emotional intelligence; however, this is certainly not the only lens by which such a leader may be examined. Exploring optimism, a theme surfaced in emotional intelligence but also celebrated in the work of Bennis (2009) and Webster (2017), is also a recommendation of future study from this research.

Additionally, researching informal formal teacher leadership roles is a recommendation for future study as it is an untapped area in educational leadership literature (Masullo, 2017). The instructional technology leader is a position that is unique and in many ways narrow in that the position neither fits leadership encompassed in roles like that of the building principal, nor does it fit the category of classroom teacher. Consequently, it can be difficult to define just what it means to be such a leader. For this reason, exploring the role of the instructional technology leader

with respect to its informal category of leadership may assist to inform similar, emerging instructional leadership roles such as teacher mentor, instructional coach, department or team leads, school improvement liaisons, etc. (Masullo, 2017; Schaffhauser, 2009). Such informal leadership roles are a growing field that deserves greater attention in research.

In sum, while this research surfaced three portraits to tell a story of the informal educational leader, there are still a variety of sub-topics, categories, variables, and questions to explore in this area. Unquestionably, future studies are needed to address the full scope of the experience of leaders who lead without legitimate power.

Conclusions

After collecting data through interview, participant observations, and the TEIQue analysis, four themes and three key findings emerged. This research indicates across four themes (support, adaptability, relationships, and influence) the following three key findings: (1) instructional technology leaders work to be both self aware and communicative of the supports needed for growth and efficacy in their position; (2) instructional technology leaders strive to have the ability to adapt to environments as critical to the work of the instructional technology leader in influencing technology integration in the classroom; and (3) instructional technology leaders aim to have the ability to influence technology integration was supported by the ability to build and maintain relationships with teachers in the classroom. These themes and key findings align easily with the AAP conceptual framework (Authentic Leadership Theory, Adaptive Leadership Theory, and Primal Leadership Theory) surfaced in Chapters 1 and 2 of this research. This research study gives information about how instructional technology

leaders perceive themselves, their roles, and the role that emotional intelligence and awareness plays in their roles as leaders in the form of portraitures developed by the stories of its three participants. The narratives surfaced from this study may inform the growing field of informal leadership roles in education, such as instructional mentors and coaches, department or grade team leaders, etc., who function as school leaders but do not hold legitimate power and are often not required to hold licensure in school leadership and administration. Future studies are recommended.

Researcher's Reflections

As an instructional technology leader with just three years of experience in the field, this research allowed me to explore the nuances of a profession in which I am relatively new. Listening to the experiences of the participants in this study, I could hear echoes of my own thoughts, beliefs, questions, and ideas in their stories. I could see themes and shared experiences unfolding and intertwining with one another. I could also feel myself pausing at some of what I heard and wondering if my hesitation was a result of my own perceptions of and certifications for school leadership.

During this research, I resolved that the work of the instructional technology leader, and the work of leadership roles like it, is a dance between three modes of operation…being aware and communicative about supports needed, being able to adapt the ever-changing climate of a school environment, and being able to take those two concepts to create and nurture relationships that allow the leader to influence change. The success of this kind of leader depends on the leader's ability to 'dance' gracefully.

Embarking on this journey with portraiture as a vehicle for collecting data allowed me to hear and share stories as well as be introspective about my own work as an

instructional technology leader, as an educational leader. This study has helped me to apply theory to the intricate work of leadership when it is not accompanied by legitimate power. My hope is that this research supports and inspires more inquiry into leadership roles that are grounded in the ability to harness emotional intelligence to influence positive change.

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Appendices

Appendix A

Except from *Instructional Technology Resource Teacher and Technology Support Positions: A Handbook for School Divisions*

Instructional Technology Resource Teacher (ITRT)

As technology becomes integrated into instruction and a pervasive tool for learning and communication, schools face many challenges in providing adequate levels of technology support. Two of the often-mentioned barriers preventing technology use in classrooms are planning for and incorporating technology into lessons, and insufficient, inappropriate, or inconvenient training. Support and professional development can be considered the most critical components for effective integration of technology. Effective support focusing on curriculum and technology integration at the school site can be one-on-one, in small groups, by grade-level, by department, or by skill level by the ITRT in a coaching or mentoring role. Teachers from the Ameritech Classroom of the Future indicated that they owed their success in this technology-rich environment to the technology specialists who supported their integration and facilitation needs. Research indicates that learning is enhanced when technology tools are used appropriately and effectively. The ITRT can be a valuable asset in creating, implementing, and directing a global vision for integrating technology into classroom instruction.

Teaching credibility, a clear vision and excellent communication skills, the ITRT can assist teachers in unlocking the power of technology in classroom instruction.

Instructional technology resource teachers (ITRTs) provide on-site and on-demand assistance for fellow teachers to create different forms of learning and teaching with the help of technologies. They seek to improve student learning by showing teachers the thoughtful applications and best practices of these new tools. Indications show that ITRTs, carefully chosen and wisely used, are more effective in helping teachers incorporate technology into teaching and learning than any other form of professional development. The intent of providing funding for instructional technology resource teachers in the Standards of Quality (SOQ) is to assist teachers with the integration of technology in the classroom, to train teachers to use technology in an effective manner, and to assist with curriculum development as it relates to educational technology. An instructional technology resource teacher:

- Provides direct support to the classroom teacher coaching or modeling for the utilization of technology tools and resources to support instruction in the classroom
- Consults and collaborates directly with teachers and only works with students for the purpose of modeling or demonstrating a lesson
- Advises and assists teachers to determine what, when, and where to integrate appropriate technology tools in the curriculum to enhance teaching and learning
- Has a strong foundation in pedagogy and teaching methodologies
- Models technology usage for staff and shares the vision of integrating technological components
- Is an experienced user of technology for productivity
- Collaborates with school personnel, and administrators
- Coordinates the selection and acquisition of software

- Develops a rich library of curriculum-driven support materials and technology-enhanced resources for grade levels and subject areas for teachers
- Keeps current with updates in educational technology
- Researches and develops methods of state academic standards and curriculum with effective technology-based teaching and learning strategies to improve student achievement
- Helps schools develop and implement short-term and long-term learning goals into school improvement plans to support student achievement objectives and proficiencies
- Facilitates a school-wide technology effort
- Designs and implements high-quality professional development.
- Conducts assessment of teacher and student technology literacy and use
- Evaluates activities to determine effectiveness
- Is a liaison between the school and the school division technology office

Roles and Responsibilities

Effective support that focuses on curriculum and technology integration is the primary goal of technology support staffing. The challenge is to provide adequate training and support to bring teachers at every point of the continuum from technophobia to technomania to an adequate level of technical expertise so learning goals can be met. Considerable consideration should be given to the roles and responsibilities of the ITRT. This individual is a valuable asset in creating, implementing, and directing a global vision for integrating technology into schools. Clear descriptions of responsibilities and precise expectations of the ITRT should be developed and agreed upon to assure the successful supervision and implementation of the support program.

The ITRT is specified as a teacher, and therefore must be a licensed teacher. The position is full-time equivalent. Instructional technology resource teachers are available throughout the school day for planning and implementation of integration activities. This avoids the challenge of finding time to provide support while meeting teaching obligations. Instructional technology resource teachers are intended to serve as resources to classroom teachers, but are not intended to serve as classroom teachers. Their primary purpose is to train teachers to use technology in an effective manner. In this role they are also agents of change and actively engaged in curriculum development and lesson planning. They use their credibility as a classroom teacher and their knowledge of teaching strategies to help design lessons and plan projects with the teachers. It is not the responsibility of the instructional technology resource teacher to evaluate a teacher's performance. The ITRT does, however, work with the teacher to assess the effectiveness of a technology-based lesson.

Qualifications include,
but are not limited to:

- Being a licensed teacher
- Having successful teaching and classroom management experience
- Knowledge of curriculum, instructional strategies, and the Standards of Learning Program
- Knowledge and proficient user of computers and related technology
- Skill in integrating technology with curriculum
- Skill in working with others in a leadership position
- Ability to maintain a good working relationship with others
- Possessing effective interpersonal and organizational skills
- Ability to articulate and adapt communication and presentation style for various audiences
- Demonstrates oral and written communication skills

"If the teachers see the TIS (Technology Integration Specialist) first as a teacher and second as a technologist, their partnerships are likely to be that much more productive." (http://curry.edschool.virginia.edu/class/edlf/589/reviews/Scot_Hall.doc)

Duties and responsibilities of an ITRT include
but are not limited to:

- Working collaboratively with individual or groups of teachers to integrate technology into instruction
- Assisting with curriculum and content development
- Disseminating information regarding technology resources, emerging technologies, best practices using technology, and professional development opportunities
- Facilitating or conducting technology-related professional development for school staff
- Assessing levels of teacher and student technology use and skills
- Working with appropriate division or school-based curriculum and technology staff to help school staff in integrating technology into the curriculum
- Modeling effective instructional strategies using technology
- Serving as a member of the school technology committee
- Supporting implantation of the division and state technology plan
- Researching use of newer technologies in instruction
- Using data to design technology-based instructional strategies
- Recommending hardware, software, and related resources
- Identifying trends in software, curriculum, teaching strategies, and other educational areas
- Creating learning resources for teachers, staff and students
- Serving as a strong advocate for technology integration
- Participating in software selection and use

Attributes of An Instructional Technology Resource Teacher

Interpersonal skills include the habits, attitudes, manners, appearance, and behaviors we use while working with people that affect how well we get along. Good interpersonal skills are a prerequisite for success as an instructional technology resource teacher. The ITRT provides assistance by consulting with other teachers, discussing and sharing teaching practices, and supporting efforts to enrich student learning through technology. Interpersonal skills, such as communication, problem solving, and teamwork abilities enable the ITRT to work with others harmoniously and efficiently. Collaboration should take place in a non-threatening and non-judgmental environment. Technical support needs to be on-site, individualized, and teacher-oriented. The ITRT needs to relate well with teachers. If this doesn't happen, the chance of successful integration is in jeopardy.

"The need for possessing excellent people skills, flexibility and a global perspective far outweigh the need for technological expertise." (From, Fulfilling the Need for a Technology Integration Specialist)

ITRTs Who Have Good Interpersonal Skills:

- Are good listeners
- Work harmoniously and efficiently with others individually and in team settings
- Manage conflict effectively by devising win-win solutions, constructively influencing the behavior of others, use effective communication and persuasive strategies
- Are able to align their goals to the goals of others during collaborative activities
- Are forthright
- Respectful of others
- Friendly
- Maintain enthusiasm
- Pleasing personality
- Helpful and patient when dealing with users
- Remain calm and polite under stress
- Are able to manage their behavior during social interactions
- Are sensitive to the needs of others and to the forces that shape the way others feel and behave
- Enhance the strengths and abilities of others
- Are approachable and interact well with others
- Provide guidance to subordinates when needed; resist controlling others by allowing autonomy when appropriate

Appendix B

International Society for Technology in Education-Standards for Coaches

ISTE Standards

International Society for Technology in Education

ISTE Standards Coaches

1. Visionary leadership

Technology Coaches inspire and participate in the development and implementation of a shared vision for the comprehensive integration of technology to promote excellence and support transformational change throughout the instructional environment.

a. Contribute to the development, communication, and implementation of a shared vision for the comprehensive use of technology to support a digital-age education for all students

b. Contribute to the planning, development, communication, implementation, and evaluation of technology-infused strategic plans at the district and school levels

c. Advocate for policies, procedures, programs, and funding strategies to support implementation of the shared vision represented in the school and district technology plans and guidelines

d. Implement strategies for initiating and sustaining technology innovations and manage the change process in schools and classrooms

2. Teaching, learning, and assessments

Technology Coaches assist teachers in using technology effectively for assessing student learning, differentiating instruction, and providing rigorous, relevant, and engaging learning experiences for all students.

a. Coach teachers in and model design and implementation of technology-enhanced learning experiences addressing content standards and student technology standards

b. Coach teachers in and model design and implementation of technology-enhanced learning experiences using a variety of research-based, learner-centered instructional strategies and assessment tools to address the diverse needs and interests of all students

c. Coach teachers in and model engagement of students in local and global interdisciplinary units in which technology helps students assume professional roles, research real-world problems, collaborate with others, and produce products that are meaningful and useful to a wide audience

d. Coach teachers in and model design and implementation of technology-enhanced learning experiences emphasizing creativity, higher-order thinking skills and processes, and mental habits of mind (e.g., critical thinking, metacognition, and self-regulation)

e. Coach teachers in and model design and implementation of technology-enhanced learning experiences using differentiation, including adjusting content, process, product, and learning environment based upon student readiness levels, learning styles, interests, and personal goals

f. Coach teachers in and model incorporation of research-based best practices in instructional design when planning technology-enhanced learning experiences

g. Coach teachers in and model effective use of technology tools and resources to continuously assess student learning and technology literacy by applying a rich variety of formative and summative assessments aligned with content and student technology standards

h. Coach teachers in and model effective use of technology tools and resources to systematically collect and analyze student achievement data, interpret results, and communicate findings to improve instructional practice and maximize student learning

3. Digital age learning environments

Technology coaches create and support effective digital age learning environments to maximize the learning of all students.

a. Model effective classroom management and collaborative learning strategies to maximize teacher and student use of digital tools and resources and access to technology-rich learning environments

b. Maintain and manage a variety of digital tools and resources for teacher and student use in technology-rich learning environments

c. Coach teachers in and model use of online and blended learning, digital content, and collaborative learning networks to support and extend student learning as well as expand opportunities and choices for online professional development for teachers and administrators

d. Select, evaluate, and facilitate the use of adaptive and assistive technologies to support student learning

e. Troubleshoot basic software, hardware, and connectivity problems common in digital learning environments

f. Collaborate with teachers and administrators to select and evaluate digital tools and resources that enhance teaching and learning and are compatible with the school technology infrastructure

g. Use digital communication and collaboration tools to communicate locally and globally with students, parents, peers, and the larger community

4. Professional development and program evaluation

Technology coaches conduct needs assessments, develop technology-related professional learning programs, and evaluate the impact on instructional practice and student learning.

a. Conduct needs assessments to inform the content and delivery of technology-related professional learning programs that result in a positive impact on student learning

b. Design, develop, and implement technology-rich professional learning programs that model principles of adult learning and promote digital age best practices in teaching, learning, and assessment

c. Evaluate results of professional learning programs to determine the effectiveness on deepening teacher content knowledge, improving teacher pedagogical skills and/or increasing student learning

5. Digital citizenship

Technology coaches model and promote digital citizenship.

a. Model and promote strategies for achieving equitable access to digital tools and resources and technology-related best practices for all students and teachers

b. Model and facilitate safe, healthy, legal, and ethical uses of digital information and technologies

c. Model and promote diversity, cultural understanding, and global awareness by using digital age communication and collaboration tools to interact locally and globally with students, peers, parents, and the larger community

6. Content knowledge and professional growth

Technology coaches demonstrate professional knowledge, skills, and dispositions in content, pedagogical, and technological areas as well as adult learning and leadership and are continuously deepening their knowledge and expertise.

a. Engage in continual learning to deepen content and pedagogical knowledge in technology integration and current and emerging technologies necessary to effectively implement the Standards•S and Standards•T

b. Engage in continuous learning to deepen professional knowledge, skills, and dispositions in organizational change and leadership, project management, and adult learning to improve professional practice

c. Regularly evaluate and reflect on their professional practice and dispositions to improve and strengthen their ability to effectively model and facilitate technology-enhanced learning experiences

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Appendix C

TEIQue Domain Explanations

Version 1.50

The trait emotional intelligence (trait EI) model successfully integrates and extends EI-related ideas in a general framework that incorporates 15 specific facets.

Adaptability	Emotion control	Low impulsiveness	Self-motivation	Trait empathy
Assertiveness	Emotion expression	Relationships	Social awareness	Trait happiness
Emotion appraisal (self and others)	Emotion management (others)	Self-esteem	Stress management	Trait optimism

The TEIQue assesses all of the above facets through 15 subscales. In addition, it provides scores on four factors of broader relevance ('*well-being*,' '*self-control*,' '*emotionality*,' and '*sociability*'). Below, you will find brief information about each of the scales and factors. At all times, it is important to remember that scores on the trait EI facets do not reflect cognitive abilities (e.g., IQ), but rather self-perceived abilities and behavioural dispositions.

The TEIQue is a scientific measurement instrument based exclusively on trait EI theory. Trait EI theory is unrelated to what lay individuals understand by 'emotional intelligence' and is incompatible with all other 'models' promoted in the various literatures. The TEIQue is not an alternative to questionnaires or tests claiming to measure 'emotional intelligence'. It is

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specifically developed and updated to provide a gateway to trait EI theory. Trait EI theory is developed in the context of the trait emotional intelligence research program. Relevant scientific publications from the program can be downloaded at:

http://www.psychometriclab.com

Interpreting subscale scores

Emotion expression: High scores on this scale mean people are fluent in communicating their emotions to others. They know what the best words are for expressing their feelings accurately and unambiguously. Low scores on this scale indicate a difficulty in communicating emotion-related thoughts, even in situations when this is necessary. People with low scores find it difficult to let others know how they feel. Inability to express emotion may be indicative of a more generalized problem of lack of self-confidence and social assertiveness.

Empathy: This scale measures the 'perspective-taking' aspect of empathy: seeing the world from someone else's point of view. In other words, it has to do with whether one can understand other people's needs and desires. People with high scores on this scale tend to be skilful in conversations and negotiations because they take into account the viewpoints of those they are dealing with. They can put themselves "in somebody else's shoes" and appreciate how things seem to them. Low scorers have difficulty adopting other people's perspectives. They tend to be opinionated and argumentative and may often seem self-centred.

Self-motivation: People with high scores on this scale are driven by a need to produce high-quality work. They tend to be determined and persevering. They do not need to be externally

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rewarded for their efforts because they have a strong sense of achievement and are motivated from within. Low scorers tend to need a lot of incentives and encouragement in order to get things done. They need constant reward to keep going and they are more likely to give up in the face of adversity. They also tend to have reduced levels of drive and persistence.

Emotion regulation: This scale measures short-, medium-, and long-term control of one's own feelings and emotional states. High scorers have control over their emotions and can change unpleasant moods or prolong pleasant moods through personal insight and effort. They are psychologically stable and they know how to pick themselves up after emotional setbacks. Low scorers are subject to emotional seizures and periods of prolonged anxiety or even depression. They find it difficult to deal with their feelings and are often moody and irritable.

Happiness: This scale concerns pleasant emotional states, primarily directed towards the present rather than the past (life satisfaction) or the future (optimism). High scorers are cheerful and feel good about themselves. Low scorers often feel blue and can be overly negative about things. More generally, people with low scores on this scale tend to be disappointed with their life as it is at present. Along with *self-esteem* and *optimism*, this scale reflects your general psychological state at present.

Social awareness: High scorers believe they have excellent social skills and are socially sensitive, adaptable, and perceptive. They are good at negotiating, brokering deals, and influencing others. In addition, they tend to have control over their emotions and the manner in which they express them, which enables them to function confidently in diverse social contexts,

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like parties or networking events. Low scorers believe they have limited social skills and often feel anxious in unfamiliar settings because they are unsure about how to behave. They find it difficult to express themselves clearly and have a small circle of acquaintances. They are known for their limited interpersonal skills.

Low impulsiveness: This scale measures mainly dysfunctional ('unhealthy') rather than functional ('healthy') impulsivity. Low impulsivity involves thinking before acting and reflecting carefully before making decisions. High scorers on this scale weigh all the information before they make up their mind, without, however, being overly cautious. Low scorers tend to be impetuous and to give in to their urges. Much like children, they want immediate gratification and have low self-control. They often speak without having thought things through and they change their mind frequently.

Emotion perception: This scale measures emotion perception in one's own self as well as in others. High scorers on this scale are clear about what they feel and able to decode other people's emotional expressions. In contrast, people with low scores on the emotion perception scale are often confused about how they feel and do not pay much attention to the emotional signals that others send out.

Self-esteem: The self-esteem scale measures one's overall evaluation of oneself. High scorers have a positive view of themselves and their achievements. They are confident, positive, and satisfied with most aspects of their life. Low scorers tend to lack self-respect and to not value

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themselves very highly. Low self-esteem scores are often the result of challenges in one or more of the other areas that the TEIQue assesses.

Assertiveness: Individuals with high scores on this scale are forthright and frank. They know how to ask for things, give and receive compliments, and confront others when necessary. They have leadership qualities and can stand up for their rights and beliefs. Low scorers tend to back-down even if they know they are right and have difficulty saying 'no,' even when they feel they must. As a result, they often end up doing things they do not want to do. In most cases, they prefer to be part of a team rather than to lead it.

Emotion management: This scale concerns one's perceived ability to manage *other* people's emotional states. High scorers on the emotion management scale can influence other people's feelings (e.g., calm them down, console them, motivate them). They know how to make others feel better when they need it. Low scorers can neither influence nor manage others' feelings. They become overwhelmed when they have to deal with other people's emotional outbursts and are less likely to enjoy socializing and networking.

Optimism: Like *happiness*, this scale is linked to well-being, albeit in a forward-looking way. High scorers look on the bright side and expect positive things to happen in their life. Low scorers are pessimistic and view things from a negative perspective. They are less likely to be able to identify and pursue new opportunities and tend to be risk-averse. Along with *happiness* and *self-esteem*, this scale reflects your general psychological state at this point in time.

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Relationships: This scale mainly concerns one's personal relationships, including close friends, partners, and family. It is about starting and maintaining emotional bonds with others. High scorers usually have fulfilling personal relationships that positively affect their productivity and emotional well-being. They know how to listen and be responsive to the people close to them. Low scorers find it difficult to bond well with others and tend to undervalue their personal relationships. They often behave in ways that hurt those close to them.

Adaptability: High scorers are flexible in their approach to work and life. They are willing and able to adapt to new environments and conditions – in fact, they may even enjoy novelty and regular change. Low scorers are change-resistant and find it difficult to modify their work- and life-style. They are generally inflexible and have fixed ideas and views.

Stress management: High scorers on this scale can handle pressure calmly and effectively because they have developed successful coping mechanisms. More often than not, they are good at regulating their emotions, which helps them tackle stress. Low scorers are less likely to have developed stress-coping strategies. They may prefer to altogether avoid situations that are potentially hectic, rather than deal with the associated tension. Their vulnerability to stress is problematic, as it leads them to reject important, but time-demanding, projects.

Interpreting factor scores

Well-being: High scores on this factor reflect a generalized sense of well-being, extending from past achievements to future expectations. Overall, individuals with high scores feel positive, happy, and fulfilled. In contrast, individuals with low scores tend to have low self-regard and to

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be disappointed about their life as it is at present. Your well-being score largely depends on your scores on the other three factors of the TEIQue.

Self-control: High scorers have a healthy degree of control over their urges and desires. In addition to fending off impulses, they are good at regulating external pressures and stress. They are neither repressed nor overly expressive. In contrast, low scorers are prone to impulsive behaviour and seem to be incapable of managing stress. Low self-control are associated with inflexibility.

Emotionality: Individuals with high scores on this factor believe they have a wide range of emotion-related skills. They can perceive and express emotions and use these abilities to develop and sustain close relationships with important others. Individuals with low scores on this factor find it difficult to recognize their internal emotional states and to express their feelings to others, which often leads to less rewarding personal relationships.

Sociability: The sociability factor differs from the emotionality factor above in that it emphasises social relationships and social influence. The focus is on the individual as an agent in different social contexts rather than on personal relationships with family and close friends. Individuals with high scores on the sociability factor are better at social interaction. They believe they have good listening skills and can communicate clearly and confidently with people from very diverse backgrounds. Those with low scores believe they are unable to affect others' emotions and are less likely to be good negotiators or networkers. They are unsure what to do or say in social situations and, as a result, they often appear shy and reserved.

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Appendix D

TEIQue-SF Instrument

TEIQue-SF

Instructions: Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. Do not think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from 'Completely Disagree' (number 1) to 'Completely Agree' (number 7).

1 . . . . . 2 . . . . . 3 . . . . . 4 . . . . . 5 . . . . . 6 7
Completely Disagree **Completely Agree**

1. Expressing my emotions with words is not a problem for me.	1	2	3	4	5	6	7
2. I often find it difficult to see things from another person's viewpoint.	1	2	3	4	5	6	7
3. On the whole, I'm a highly motivated person.	1	2	3	4	5	6	7
4. I usually find it difficult to regulate my emotions.	1	2	3	4	5	6	7
5. I generally don't find life enjoyable.	1	2	3	4	5	6	7
6. I can deal effectively with people.	1	2	3	4	5	6	7
7. I tend to change my mind frequently.	1	2	3	4	5	6	7
8. Many times, I can't figure out what emotion I'm feeling.	1	2	3	4	5	6	7
9. I feel that I have a number of good qualities.	1	2	3	4	5	6	7
10. I often find it difficult to stand up for my rights.	1	2	3	4	5	6	7
11. I'm usually able to influence the way other people feel.	1	2	3	4	5	6	7
12. On the whole, I have a gloomy perspective on most things.	1	2	3	4	5	6	7
13. Those close to me often complain that I don't treat them right.	1	2	3	4	5	6	7
14. I often find it difficult to adjust my life according to the circumstances.	1	2	3	4	5	6	7
15. On the whole, I'm able to deal with stress.	1	2	3	4	5	6	7
16. I often find it difficult to show my affection to those close to me.	1	2	3	4	5	6	7
17. I'm normally able to "get into someone's shoes" and experience their emotions.	1	2	3	4	5	6	7
18. I normally find it difficult to keep myself motivated.	1	2	3	4	5	6	7
19. I'm usually able to find ways to control my emotions when I want to.	1	2	3	4	5	6	7
20. On the whole, I'm pleased with my life.	1	2	3	4	5	6	7
21. I would describe myself as a good negotiator.	1	2	3	4	5	6	7
22. I tend to get involved in things I later wish I could get out of.	1	2	3	4	5	6	7
23. I often pause and think about my feelings.	1	2	3	4	5	6	7
24. I believe I'm full of personal strengths.	1	2	3	4	5	6	7
25. I tend to "back down" even if I know I'm right.	1	2	3	4	5	6	7
26. I don't seem to have any power at all over other people's feelings.	1	2	3	4	5	6	7
27. I generally believe that things will work out fine in my life.	1	2	3	4	5	6	7
28. I find it difficult to bond well even with those close to me.	1	2	3	4	5	6	7
29. Generally, I'm able to adapt to new environments.	1	2	3	4	5	6	7
30. Others admire me for being relaxed.	1	2	3	4	5	6	7

Appendix E

Protocol for Data Collection Phase.

Remind participants of the following clause from the consent form:

Voluntary Participation: Taking part in this study is completely voluntary. You may skip any questions that you do not want to answer. If you decide to take part, you are free to withdraw at any time.

Part 1: TEIQue Assessment Survey.

1. At this time, you will take a TEIQue-SF assessment. Complete the TEIQue-SF assessment to the best of your ability. You will have up to 20 minutes. Your scores will be made available during the optional Feedback Session.

2. After taking the assessment, review the following 15 TEIQue domains, and circle the three that you believe are most important for your work as an instructional technology leader and explain why:

i. *Adaptability* (flexible and willing to adapt to new conditions),

ii. *Assertiveness* (forthright, frank, and willing to stand up for their rights),

iii. *Emotion perception (*clear about their own and other people's feelings),

iv. *Emotion expression* (capable of communicating their feelings to others),

v. *Emotion management of others (*capable of influencing other people's feelings),

vi. *Emotion regulation* (capable of controlling their emotions),

vii. *Impulsiveness (low)* (reflective and less likely to give in to their urges),

viii. *Relationships* (capable of having fulfilling personal relationships),

ix. *Self-esteem* (successful and self-confident),

x. *Self-motivation* (driven and unlikely to give up in the face of adversity),

xi. *Social awareness* (accomplished networkers with excellent social skills),

xii. *Stress management* (capable of withstanding pressure and regulating stress),

xiii. *Trait empathy* (capable of taking someone else's perspective),

xiv. *Trait happiness* (cheerful and satisfied with their lives), and

xv. *Trait optimism* (confident and likely to "look on the bright side" of life). Of the following 15 domains, which three domains do you believe would be most important in your work as an instructional technology leader? Why?

Part 2: Observation

You will be observed for up to 40 minutes in your field as an instructional technology leader. Your observation can take place at a professional development workshop you are leading, class you are teaching, planning session you are engaged in, meeting you are attending, etc. The observation, though, should capture your work as an instructional technology leader. The researcher may notes and photos during the observation. You will have an opportunity to review any notes or photographs taken during an optional feedback session. Photos of identifiable location markers or faces will be altered or removed to maintain anonymity.

Part 3: Interview Questions

1. Describe how you became an instructional technology leader.
    a. What was your profession(s) prior to becoming an instructional technology leader?
    b. What sparked your interest in instructional technology?
    c. What surprises did you have as it relates to becoming an instructional technology leader?
2. What do you feel makes a good instructional technology leader?
    a. What are the qualifications of an instructional technology leader?
    b. What qualities do you find yourself relying on in your work as instructional technology leader?
3. Tell me about a typical day as an instructional technology leader.
    a. What do you find yourself spending most of the time doing in your work as an instructional technology leader?
4. How are technology programs and policies communicated and monitored in your school building?
    a. Tell me about the policies and programs for instructional technology in your building.
    b. Tell me about the process of communicating and monitoring those programs.
5. What does successful implementation and integration of instructional technology look like from your perspective?
    a. When instructional technology is successfully implemented and integrated in school, what evidence do you expect to find in the classroom? With students? With teachers? With administration?
    b. How does this portrayal align with the climate of the current school(s) you serve?

6. What do you believe is your influence or impact on the learning environment in your role as instructional technology leader?
    a. How do you impact the learning environment with the building principal? Teachers? Students? Other stakeholders?

7. How do teachers, students, and administration at your school perceive you as the instructional technology leader?
    a. What supports your beliefs about their perceptions?

8. What, if anything, would you like to add to this conversation?

Optional Feedback Session #1-Member Check #1

(This session is to be conducted and offered to participants after interviews have been transcribed. A deadline for submitting feedback will be set 48 hours after Feedback Session #1 is conducted.)

1. Look over the transcripts of our interview, my notes and photographs taken during your observation, and the results of the TEIQue assessment you took. Read and annotate if you would like.
    a. Highlight key points that stand out to you.
    b. Circle things that you would like to add to and place comments in the margin.
    c. Underline things that you wish you could re-state or clarify…and place comments in the margin.

Optional Feedback Session #2-Member Check #2

(This session is to be conducted and offered to participants after the researcher analyzes data and records findings. A deadline for submitting feedback will be set 48 hours after Feedback Session #2 is conducted.)

1. Review the researcher's narrative of the findings in the study, including common themes that emerged from the experiences of the participating instructional technology leaders through analyzing the TEIQue scores, observation notes/photographs, and interview transcripts.
    a. Highlight key points that stand out to you.
    b. Circle things that you would like to add to and place comments in the margin.
    c. Underline things that you wish you could re-state or clarify…and place comments in the margin. Is there anything we missed?

Appendix F

Reimaged: The Emotionally Intelligent Instructional Technology Leader
Study Consent Form

What the study is about: You are being asked to take part in a research study about the experiences of instructional technology leaders because you have been identified as a fully released instructional technology leader in your district or school building. Please read this form carefully and ask any questions you may have before agreeing to take part in the study. The purpose of this study is to learn how instructional technology leaders make meaning of their role as non-traditional educational leaders.

What we will ask you to do: If you agree to be in this study, you will participate in a required Initial Session in which you will take the Traits Emotional Intelligence Questionnaire (TEIQue-SF) assessment (up to 20 minutes). Then you will be observed in your field as an instructional technology leader (up to 40 minutes). Finally, you will participate in a recorded, semi-structured interview regarding the observation and your work in instructional technology leadership. The entire Data Collection Phase will last no loner than 90 minutes. Your identity will remain anonymous and pseudonyms will be given to each participant. The data (TEIQue results, observation, and interview recordings/transcripts) will be collected and analyzed for common themes. All participants will have the option to review their interview transcript and the findings of the researcher in two optional follow up sessions.

Risks and benefits: Risks are minimal; however, there are risks for possible loss of confidentiality and/or discomfort due to asking for personal information in surveys or interviews**.** Participants in the study will be provided with the results of the TEIQue-SF, which provide information for one's emotional intelligence traits as it relates to connecting with other, which can be especially useful in the workplace. Data will be used to create individual narrative portraits of instructional technology leaders.

Compensation: There is no compensation for participation in this study.

Confidentiality: Your answers will be confidential. The records of this study will be kept private. Any publications made with this research will not include any information that will make it possible to identify you. Research records will be kept in a locked file; only the researcher will have access to the records.

Voluntary Participation: Taking part in this study is completely voluntary. You may skip any questions that you do not want to answer. If you decide to take part, you are free to withdraw at any time.

Questions: The researcher conducting this study is Cynthia Robinson-Carney. Please ask any questions you have now. If you have questions later, you may contact Cynthia Robinson Carney at cyndi@alumni.virginia.edu or at 1-804-929-2929. If you have any questions or concerns regarding your rights as a subject in this study, you may contact the Institutional Review Board (IRB) George Washington University at 202-994-2715 or ohrirb@gwu.edu.
You will be given a copy of this form to keep for your records. The researcher will keep this consent form for seven years beyond the end of the study.

****

Statement of Consent: I have read the information regarding the study, and have received answers to any questions I asked. I consent to take part in the study.

Your Signature _____ Date _____
Your Name (printed) _____
In addition to agreeing to participate, I also consent to having the interview tape-recorded.
Your Signature _____ Date _____
Signature of person obtaining consent _____ Date _____
Printed name of person obtaining consent _____Date _____