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The purpose of this qualitative research study was to examine and describe principals of a digital learning environment (DLE) and illustrate how their skills, qualities, and behaviors look in practice. The research consisted of case studies of two principals and included principal interviews, teacher focus groups, observations of open house events, observations of professional learning team meetings, and document analysis. The study was meant to expand upon the current literature available about leadership in a digital context and create a descriptive, conceptual summary of possible approaches rather than a prescriptive list of actions. In the literature review, I identified specific traits of a principal in a DLE. This list of actions served as my conceptual framework that shaped participant selection as well as interview questions for both the principals and the focus groups.

After collecting and analyzing the data, I identified seven key themes. These themes are:

1. Principals possess and clearly articulate a belief that all students can learn and deserve the opportunity to do so.
2. Principals believe in the power of a strong teacher and strong instructional strategies as key levers for student growth.
3. Principals foster a culture of collaboration and risk taking.
4. Principals act as the instructional leader in their buildings.

5. Principals believe that schools are places of continual learning and provide professional development opportunities aligned to the learning.
6. Principals believe that face-to-face communication is the most effective way to build relationships with internal and external stakeholders.
7. Principals take ownership of their school and directly communicate their expectations and beliefs.

In this study it was concluded that these themes supported, added to, or caused reclassification of the traits listed in the original conceptual framework. Therefore, I created a revised conceptual framework. I also produced a descriptive summary of a principal of a DLE in practice.

The themes that emerged from this study, the examples that supported these themes, and the revised traits of a principal of a DLE could add to information used by school districts to recruit, select, and retain principals. Additionally, the findings of this study provide examples of areas to target when building the capacities of future principals during preparation programs. Future research should include additional principals to create a more robust description that could further support the development, recruitment, selection, retention, and evaluation of principals of a DLE.

A PROFILE OF PRINCIPALS IN DIGITAL LEARNING ENVIRONMENTS

by

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To Lee for his support and encouragement

To Carson for his inquiries and humor

To Cailynn for her patience and celebrations

and To Campbell for her constant praise and presence

May this work show each of you that anything is possible.

APPROVAL PAGE

The dissertation written by KELLY WEAVER WITHERS has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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TABLE OF CONTENTS

	Page
LIST OF FIGURES	vii
CHAPTER	
I. INTRODUCTION	1
Digital Learning Environment Defined	2
The Classroom as a Digital Learning Environment.....	3
Statement of Problem.....	5
Research Purpose and Methods.	6
Personal Motivation and Interest	7
The Chapters Explained.....	8
II. REVIEW OF THE LITERATURE	10
Instructional Leadership.....	10
Transformational and Transformative Leadership.....	12
Evolution of Leadership Based on Context	14
A Digital Context – The “Why”	18
The “What” of Digital Leadership.....	21
Developing the “How” of Digital Leadership	24
Possession of a Clear Vision and Established Values	25
Establishment of an Innovative, Collaborative Culture	27
Operating as a Connected Learner	29
Focusing on Partnerships	31
Designer of Professional Development	33
Strategic Planner	35
Digital Leadership Concluded	36
Conceptual Framework.....	36
Clear Vision and Established Values	37
Establishment of an Innovative, Collaborative Culture	38
Operating as a Connected Learner	38
Focusing on Partnerships	39
Designer of Professional Development	39
Strategic Planner	39
Summary of the Literature Review.....	40

III. OUTLINE OF PROCEDURES	41
Methodology	41
Participant Selection	42
Research Design.....	44
Data Analysis	48
Limitations of the Research and the Researcher.....	49
Credibility	50
Positionality	51
Subjectivity	51
Trustworthiness.....	52
Research Significance.....	53
Into the Field.....	53
IV. FINDINGS.....	57
Logan Elementary School.....	57
Barbara Taylor – Supportive and Direct.....	58
In The Beginning	59
Current Technological Access	60
Impact of Technology	61
Logan Elementary School’s Vision	62
School Culture	64
Continual Learner	69
Communication to Build Relationships	70
Professional Development	72
Strategic Planner	74
Time	75
People.....	76
Leadership Style.....	78
Stone Ridge Elementary School	78
Karen Weaver – Authoritative and Outstanding.....	79
Current Technological Access	80
Impact of Technology	80
Stone Ridge Elementary School’s Vision.....	82
School Culture	84
Continual Learner	88
School Partners	91
Professional Development	94
Strategic Planner	96
Money	97
Master Schedule.....	98
People.....	99

Leadership Style.....	100
Connections to Come.....	100
V. DATA ANALYSIS AND INTERPRETATIONS.....	102
Emerging Themes	103
Seven Themes of Principal Leadership.....	105
Theme One.....	105
Theme Two	108
Theme Three	110
Theme Four	113
Theme Five	116
Theme Six	118
Theme Seven.....	121
Seven Themes Connected to the Conceptual Framework	124
A Day’s Work of a Principal of a DLE.....	126
The Principal of a DLE.....	128
Implications, Recommendations, and Conclusion.....	129
Implications.....	131
Implications for Principals or Future Principals	131
Implications for School Districts	132
Implications for Principal Preparation Programs.....	133
Recommendations for Future Research	134
Conclusion	135
REFERENCES	137
APPENDIX A. PARTICIPANT SELECTION COMMUNICATION	144
APPENDIX B. PRINCIPAL INTERVIEW QUESTIONS	146
APPENDIX C. TEACHERS FOCUS GROUP QUESTIONS.....	149
APPENDIX D. OBSERVATION PROTOCOL.....	151

LIST OF FIGURES

	Page
Figure 1. Traits of a Principal of a Digital Learning Environment.....	37
Figure 2. Traits of a Principal of a Digital Learning Environment.....	103
Figure 3. Revised Traits of a Principal of a Digital Learning Environment.....	125

CHAPTER I

INTRODUCTION

As the trends in public education have changed, the areas of emphasis in the literature regarding educational leadership in schools have also changed. For example, as the educational community focused on trends in The Effective Schools Movement, the skills and behaviors of an instructional school leader were studied (Valentine & Prater, 2011). When increased collaboration became a norm in the general workplace, research focused on shared decision-making and collaborative processes of a transformational principal (Valentine & Prater, 2011). Schools of today are attempting to transform into digital learning environments. In 2014, schools in the United States “bought \$8.38 billion in software, digital content, or training and assessments at an annual increase of more than five percent from the year before” (Sheninger, 2016, p. 37). In order to serve students who are natives of a digital culture, technology is becoming a requirement in – rather than an enhancement to— classrooms. The expectation is quickly becoming a 1:1 student to device ratio in all classrooms.

Simply purchasing a device does not equate to a digital learning environment. In fact, Cuban (2013) describes that instead of digital access opening the door to a transformed classroom, “most teachers have domesticated innovative technologies by incorporating them into their existing repertoire of teacher-directed practices” (loc. 213). Many educational leaders have a belief that a transformation to a digital learning

environment will be a move toward a student-centered, innovative learning culture. Levin and Schrum (2012) describe, “This is the promise of technology; yet it has not always been realized. However, we know that in many places technology has been an effective catalyst for change, while in other places it has not” (p. 3). The question becomes what or who makes this change happen. Fisher and Waller (2013) found in their study of 328 Texas principals that teachers’ abilities to integrate technology effectively were positively correlated to the principal’s technology leadership proficiencies. Principals who possess such a skill set are essential to the forward movement into a student-centered, digital learning environment.

Digital Learning Environment Defined

A digital learning environment (DLE) is defined first by access. A DLE, for the purpose of this research study, is an environment in which students have access to a personal digital device daily that could be taken home to continue their learning. This access “is today’s great equalizer because it includes every student, enables individualized learning, and makes extended learning outside school hours possible for all students, not just those fortunate enough to have a computer at home” (Edwards, 2014, p. 16). In order to promote true instructional shifts, students must have ubiquitous access to devices and web-based tools. Sheninger (2016) states, “without access, digital learning becomes nothing but a pipe dream” (p. 42).

The conversion to a DLE is next defined by the instructional practices present in the educational environment. Couros (2015) states, “technology should personalize, not standardize” (p. 142). The instructional practices in a DLE should create “relevant,

personalized, collaborative, and connected learning experiences” that “enhance student engagement, which in turn drives student achievement” (Edwards, 2014, p. 89). Edwards (2014) further states that while “these learning experiences were available in a more limited way before the advent of technology, digital conversion has taken them to an entirely new level” (p. 89).

In a DLE, relevance is established utilizing real world connections to the material through research, virtual collaboration, or connection utilizing tools such as Skype. Personalized instruction becomes possible through “more options to assess students formatively and summatively than ever before” (Sheninger, 2016, p. 43). Collaboration in a DLE is experienced in face-to-face purposeful grouping as well as through the use of virtual collaboration tools such as blogs, shared documents such as Google documents, or back channel tools such as GoSoapBox. Connected learning occurs in a DLE as students use digital devices to research and discover content.

A DLE that has authentically shifted instructional practices is hard to visualize for educators who have not yet experienced or witnessed it in person. The traditional classroom that most experienced is difficult to see beyond due to the wealth of time spent in that setting. A classroom example I have created illustrates a DLE.

The Classroom as a Digital Learning Environment

In a high school English classroom, the teacher begins the semester by administering an online learning styles inventory to establish how each student best learns new content. Students are asked to reflect on their results and submit both their results and reflections through an online learning management system to the teacher. In

addition to this initial inventory, students are asked to complete an online reading assessment that provides the teacher with each student's baseline reading level. At the beginning of the novel unit, students are pre-assessed on their understanding of literary terms that relate to the novel. The teacher examines each piece of data to personalize the novel unit for each student. Students are given the choice of the novel they will read based upon their reading level. Students are then grouped together for face-to-face discussion as they read and online blog posts for student-to-student discussion as well as teacher-to-student discussion. As students read, they are each asked to complete activities best to their learning styles that allow mastery of literary terms they did not show command of on their pre-assessment. Students may watch video clips, read varied excerpts, or interview other teachers or peers to learn their list of needed terms. At the conclusion of the novel unit, students utilize text examples and evidence to show mastery of the literary terms through a multimedia product of their choice.

In 2016, Cuban (2018) studied classrooms across the Silicon Valley of California that were identified as exemplars of integrating digital technologies. In this study he described,

These individual teachers believed that laptops, tablets, and other devices were not add-ons but tools like the paper and pencil, notebook, and whiteboards that helped them teach more efficiently and engage students to learn more, faster, and better. These teachers had expanded their repertoire to include new tools, using them flexibly and at the proper time to reach the learning objectives they set out to achieve.

Within these descriptions, a DLE allows for engagement of all students. Students have the opportunity to know and understand the why behind their learning tasks. Students have voice in their learning journeys. Every student is challenged and every student is expected to grow. Cuban (2018) stated in his studies that teachers could have taught the lessons without the technology but that the teachers believed, “the iPads engaged students to learn more and better” (p. 27). A digital device is not the cause of student growth but rather is used to support the learning experiences and accelerate the processes. In a DLE, the student is the center of all learning experiences.

Statement of Problem

Literature describing the needed qualities and skills of a school leader in a DLE has begun to emerge but remains lacking. Much of the research about DLEs centers on the logistics of purchasing and deploying devices as well as the needs of students and teachers. Staples, Pugach, and Himes (2005) state, “For technology to have an enduring effect, principals themselves have to take an active role in defining and communicating a sensible role for technology integration” (p. 302). The active role of the principal in the process of shaping a learning environment into the student-centered, innovative learning culture of a DLE is at the center of this research.

The role of the school leader has changed over time. Principals are now called upon to align curricula, establish standards-based grading, personalize instruction, and effectively integrate technology into teaching and learning (Richardson, Watts, Hollis, & McLeod, 2016). While the contexts of the past are still in play, school principals are

being asked to build upon those contexts and incorporate new skills and behaviors that are necessary to lead a DLE that meets the needs of today's learners.

A digital divide exists between the traditional classroom and the 21st century students within it. Sheninger (2014) states, "A new system of learning that is differentiated and that connects to student passions and strengths must be made a reality. Teaching and learning need to transform to something yet undefined" (p. 97). Couros (2015) shares that this type of student-centered system is possible when "learners are the driver and technology is the accelerator" (p. 148). The need for change as well as the lack of change actually occurring has been documented in studies such as those conducted by Cuban, Kirkpatrick, and Peck (2001). Davies (2010) points out that "the associations between educational technology leadership and school change are yet to be addressed directly" and "what exists is prescriptive, rather than descriptive, and conceptual" (p. 59). McLeod, Bathon, and Richardson (2011) further support this idea by stating, "We simply do not have enough research about what effective school technology leaders look like nor what preparation programs should do to prepare such leaders" (p. 295). This gap in the literature exists and needs to be addressed so that perhaps the instructional transformation to a learner driven, technology accelerated system will become possible and the digital divide can be narrowed.

Research Purpose and Methods

The purpose of this study was to answer the following research question: What do the skills, qualities and behaviors of principals look like in practice in digital learning environments? The literature produces a list of traits for principals in a DLE. However,

the list is often limited in descriptive nature and yields a gap as to what these traits actually look like in daily practice. This study provides an examination of the skills, qualities, and behaviors of two current principals of digital learning environments in action as an attempt to define the “how” of leadership in a DLE.

To conduct this study, two principals were selected from a prescriptive list of traits by their superintendents. Each principal was interviewed three times and observed twice in practice. Additionally, I conducted one focus group interview with teachers at each school as well as analyzed available documents such as school improvement plans and the social media feeds of each principal. The data generated was coded both in comparison to a conceptual framework generated from the literature as well as for emerging themes.

Personal Motivation and Interest

I am currently serving as a principal in a district that has provided one to one technological access to all students in kindergarten through twelfth grade for the past four years. As we have worked to transform the learning environments in our schools, we have traveled across our nation to view other one to one schools. During these travels, I have noticed that in many cases classroom practices have remained teacher-centered and often whole-group in nature. In a few cases, schools seemed to have made significant shifts in instructional practices and resembled the created DLE described as a previous example.

With each school visited, I began to reflect on how these shifts may have occurred and the impact of the leadership within the building. I wanted to know how I could move

my own school forward to create the desired DLE for all students. Additionally, within my own district, we experienced extreme turnover in school leaders during our first years with one to one access. As we attempted to hire, I began to ponder the needed skills, qualities, and behaviors of a leader tasked with leading a one to one school towards becoming a DLE.

This study is a culmination of my interest in the “how” of leadership that leads to effectively creating a DLE. My interest in this topic allowed me to persevere through a very laborious process of researching and analyzing the data generated. My personal experiences served as both a catalyst for reflection that prompted my topic selection and the needed motivation to complete the study.

The Chapters Explained

The study begins in chapter two with a review of the literature. The review begins by discussing varied leadership types and moves to the contexts that warrant varied traits of leaders. The literature is also used to establish a digital context and define the “what” of leadership in a DLE. Chapter two concludes by utilizing the literature to develop a list of traits of leaders of a DLE and summarizing them into a conceptual framework. The framework derived from the literature was used for participant selection, to develop the interview questions, compose the focus group questions, and to code data generated during the research.

Chapter three describes the methodology used throughout the study. Participant selection, research design, and methods for analysis are discussed. Limitations of the research are also detailed.

In Chapter four, the schools studied are described to provide context and insight into the needs of each school. Additionally, each principal's professional journey is detailed. Chapter four continues by providing insight into each principal's view technology's impact on learning environments. After the descriptions are provided, the findings from the research as it relates to the conceptual framework are discussed.

Chapter five begins by describing themes that emerged during the analysis of the research. Chapter five then connects the emergent themes to the conceptual framework. These connections are used to generate a descriptive picture of a leader of a DLE in practice. Additionally, Chapter five provides an illustration of the implications of the research on current and future principals, school districts, and principal preparation programs. Finally, recommendations for future research are described.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this study was to build a profile of a principal of a DLE in practice. Though the number of schools converting to a DLE is increasing, this type of school is not in the majority. Therefore, the literature discussing leadership in this context is growing but remains limited. However, research is abundant on the varied styles of successful educational leaders.

This study assumes that the creation of a student-centered digital learning environment is a transformation in instructional practice. The literature review will be grouped as follows:

1. A brief review of instructional, transformational, and transformative leadership.
2. A review of literature establishing the importance of school context to leadership style.
3. A review of literature that addresses the existing research on leading in a digital learning environment in an attempt to define what is already known about the traits of principals of a DLE.

Instructional Leadership

In the 1980's, researchers connected to the Effective Schools Movement began to define the principal as an instructional leader (Valentine & Prater, 2011). Throughout the 1980's and the early 1990's, researchers invested time in defining the role of an

instructional leader (included establishing school-wide goals, providing the resources needed for learning, supervising and evaluating teachers, designing and implementing professional development, and establishing interpersonal relationships with and between teachers (Valentine & Prater, 2011). In 1994, Leithwood added that instructional leadership was meant to impact classroom instruction directly or influence teachers' thinking and therefore practices indirectly.

In 2005, Gurr, Drysdale, and Mulford studied schools in two Australian states. The research was focused on the leadership of principals deemed successful by varied measures. The researchers highlighted instructional leadership as an important trait of a successful principal. A teacher at one of the studied schools described the ways in which her principal was effective:

Principal A had a reputation as an excellent teacher and this helps in his leadership. He is the curriculum coordinator of the school – he maintains his interest and knowledge whilst many principals let this go. He doesn't see his job as a lot of principals do – it is only running a school, but also the kids and the curriculum. He talks to every teacher, every day, he is in the classrooms, and he is aware of what is going on and speaks about curriculum with passion. His knowledge of curriculum and how education works has been a key to teachers taking on board change so well. He has real credibility because he practices what he preaches. (p. 547-548)

This quote describes a leader who is well versed in the instructional tenets of the school and inspires teachers to think differently about instruction to meet the needs of students.

More recently, the role of an instructional leader has included leading within a data-driven culture. As schools focus on varied data points to establish school goals and necessary areas of intervention, data team meetings become a place of collaborative

dialogue. The principal acting as an instructional leader must understand how to examine, interpret, and use data points to determine if the students being served within their school are growing (Corcoran, Peck, & Reitzug, 2013). Instructional leaders are data literate educators who can lead educators to access and interpret needed data to shape the instructional program.

Boyce and Bowers (2018) stated, “instructional leadership has been an active area of educational administration research over the past thirty years” (p. 161). As schools have focused on “managing teaching and learning as the core activities”, instructional leadership has been emphasized (Bush & Glover, 2014, p. 555). Hallinger and Heck (2010) noted that in “the twenty-first century, instructional leadership has been ‘reincarnated’ as ‘leadership for learning’”. Despite what one may choose to call it, instructional leadership or leadership for learning, the “focus primarily on the direction and purpose of leaders’ influence; targeted at student learning via teachers” is an area that continues to be a hallmark of leaders deemed successful in today’s schools (Bush & Glover, 2014, p.556).

Transformational and Transformative Leadership

In the 1990’s, educational reformers began to examine schools differently. This change led researchers to consider whether an instructional skill set was sufficient to meet the needs of the current school contexts. Kenneth Leithwood led this evolution of thought by defining a transformational leader (Valentine & Prater, 2011). The focus of a transformational leader is not on the instructional program itself but rather the motives and mindsets of the teachers within a school.

Transformational leaders are different from transactional leaders. Transactional leaders base their actions on the idea of reciprocity between the leader and the follower. Actions are often characterized through the use of punishment or rewards (Van Oord, 2013). These types of leaders are rooted in task-based management. In contrast, transformational leaders derive their power from interpersonal relationships and the ability of a leader to be the catalyst for “unleashing the potential capacities that already exist in the organization” (Leithwood, Harris, & Hopkins, 2008, p. 29). Van Oord (2013) further states that transformational leaders are “characterized by an activist agenda and an overriding commitment to social justice, equality and a democratic society” (p. 422).

In accordance with this definition, a transformational leader’s ability to enact change is defined by the relationships between the stakeholders of a school. Leithwood (1992) describes organizations of this type as Type Z. Type Z schools emphasize participative decision-making. These schools are driven by a “consensual” power that is “manifested through other people, not over other people” (pp. 8-9). In this context, the leader serves as a catalyst for change through facilitative dialogue and professional pressing. Leithwood (1992) summarizes that transformational leaders provide the incentive for people to attempt to make improvements in their practices. He further explains that transformational leaders hold three main goals: “1) helping staff members develop and maintain a collaborative, professional school culture; 2) fostering teacher development; and 3) helping them solve problems together more effectively” (p. 10).

Evidence from a study of schools in Tasmania and Victoria by Gurr, Drysdale and Mulford (2005) supports the impact of transformational leaders on improved student and school outcomes. They found that leaders were deemed successful if they promoted a “culture of collegiality, collaboration, support and trust, and that this culture was firmly rooted in their democratic and social justice values and beliefs” (p. 543). Participants in the study also added that successful principals’ values and beliefs are centered on the sound education of all children in an inclusive environment that encourages the input of all stakeholders.

Shields (2010) would define the leader who advocates for democratic and social justice practices as a transformative leader. Her research states that this type of leader “begins by challenging inappropriate uses of power and privilege that create or perpetuate inequity and injustice” (p. 564). The transformative leader examines her current school context and seeks ways to transform education to work for all students. Shields (2010) expresses that this goal “although elusive, is at the heart of most current educational leadership theories” (p. 572).

Evolution of Leadership Based on Context

Today’s educational leader is asked to combine many talents and skills to lead her specific school context. Leithwood, Patten, and Jantzi (2010) state that “enough evidence is now at hand to justify claims about significant leadership effects on students that the focus of attention for many leadership researchers has moved on to include questions about how those effects occur” (p. 672). Researchers have begun to focus on how

leadership can positively or negatively impact student achievement, moving beyond establishing correlation between leadership and student achievement.

Leithwood, Patten, and Jantzi (2010) developed four paths of leadership that they believed influenced student learning; rational, emotional, organizational, and family. Surveying teachers online about distributed leadership practices, defined as “practices distributed among staff rather than enacted by only those in formal leadership roles,” conceptualized these paths (Leithwood, Patten & Jantzi, 2010, p. 683). Three of these four contextualized paths combined instructional leadership skills with the transformational skill set. The fourth path addressed the role of the leader on the external community, the family.

After compiling the survey data and reviewing achievement data as well as Canadian census data to provide a socioeconomic context, Leithwood, Patten, and Jantzi (2010) concluded that the rational path (instructional) and family path had the most significant impact on student learning. The emotional path, specifically the establishment of collective teacher efficacy (transformational), followed closely behind the rational and family paths. The organizational path, the one most influenced by leaders, had the least impact on student learning. This study supports the idea that one style of leadership does not work in isolation. The leadership style utilized is based on school context.

Valentine and Prater (2011) conducted a statewide study to examine relationships between varied leadership styles and student achievement in public high schools. They based their study on nine leadership factors which were assessed by two survey tools, The Audit for Principal Effectiveness and the Principal Leadership Questionnaire. Of the

nine factors two were instructional (instructional and curricular improvement), and three were transformational (modeling, vision development, and fostering group goals). Their study involved 155 principals. Student achievement results were collected to measure student achievement in each school. Teachers selected as a part of this study were asked to complete a survey measuring their perceptions of principal managerial, instructional, and transformational leadership. After conducting their research, Valentine and Prater (2011) concluded that principals can impact student achievement and that “while school context can influence student academic success, principal leadership can ameliorate some of the impact of contextual challenges” (p. 20).

Researchers in this study emphasized that the instructional leadership of the principal is essential to improve student outcomes. Instructional leadership skills are necessary to coordinate classroom efforts and provide feedback through evaluation and data analysis. Additionally, their statewide study found that transformational leadership practices that enhanced collaboration through social interactions and relationships had the greatest relationship with student achievement. This conclusion further supports that a mixed skill set of instructional, transformational, and distributive skills is necessary to succeed in most school contexts.

The International Successful School Principalship Project (ISSPP) began actively conducting research about the work of successful principals in 2001. Research was conducted in seven countries utilizing qualitative methods, including interviews, observations, and document analysis. The study resulted in the development of eleven themes about the nature of successful principal leadership including as some examples

high expectations, distributed leadership, social justice focus, and a continual pursuit of professional growth. Gurr (2015) stated that the “ISSPP results indicate that no single model of leadership satisfactorily captures what successful principals do” but rather that “principals are neither transformational nor instructional leaders, but show elements of both, with the use of both styles especially important for schools in challenging contexts” (p. 138).

Philip Hallinger has completed a vast amount of work surrounding educational leadership. After examining empirical research spanning 40 years, Hallinger (2011) established a framework of leadership called “leadership for learning.” This model combines several styles and provides details about the methods used to impact student outcomes. The “leadership for learning” framework has four dimensions: values and beliefs, leadership focus, contexts for leadership, and sharing leadership.

Values leadership is described as the values, emotions, and traits necessary to impact student achievement. Within this dimension, Hallinger (2011) discusses that radical change in this area is reserved for turnaround or crisis situations. The leadership focus dimension includes the development of vision and goals as a means to motivate people to higher levels of performance. These two dimensions are a part of the transformational leadership style. The sharing leadership dimension is defined by Hallinger (2011) as the “increase of the density of leadership throughout the school” (p. 136). This dimension is described as beneficial when schools have begun to experience success and sources of leadership have broadened.

One of the features that separates Hallinger's (2011) research from other studies is the intentional discussion of contexts for leadership. Hallinger argues that there is not a "one size fits all" leadership style but rather varied leadership styles that are impactful depending upon the context of the school. He summarizes his research on context by stating:

Leaders who possess a single set of tools will find themselves bouncing around from success to failure without understanding why. The capacity to read your context correctly and adapt your leadership to the needs largely determines your success. There is no one best leadership style for fostering learning in schools. We are learning more and more about the ways that leaders need to match strategies to contexts; more research on this point is needed. (p. 138)

Hallinger (2011) further emphasizes that more work is needed not on "what works" but rather on "what works" in varied settings and at different points in a journey of improvement (p. 138).

In 2014, Bush and Glover reviewed recent writings on leadership models to see how leadership was currently conceptualized. In the study, they defined leadership that "acknowledges the diverse nature of school contexts" and the need to adapt leadership styles to the school context as contingent leadership (p. 567). Given the complexity of today's educational contexts is essential to determine what types of leadership skills, qualities, and behaviors are necessary to drive progress in particular environments.

A Digital Context – The "Why"

The students in today's schools are natives of a digital culture that defines who they are, how they learn, and who they will become. However, many classrooms are still rooted in traditional teacher driven instruction, creating a digital divide between the

school and the world for which educators are preparing students. The digital natives are required to “power down” (Schrum & Levin, 2009) every day as they enter classrooms.

McLeod (2011) describes the divide in this manner:

Every societal and economic sector that revolves around information is being radically transformed by digital technologies, online services, and social media. Very few areas of American life remain relatively untouched by these paradigmatic shifts. Unfortunately, one those areas is our elementary and secondary schools. (p. 4)

Garland and Tajeda (2013) state “just having a laptop for every child may look good, but answering the question of what do we want students to learn is even more important” (loc. 246). Cuban, Kirkpatrick and Peck (2001) conducted a research study in two high schools located in Silicon Valley, California that demonstrated that access did not equate to teacher or student use. In fact the study concluded that when teachers “used computers for classroom work, more often than not their use sustained, rather than altered, existing patterns of teaching practice” (p. 813).

Public education is under political fire to change the way it does business. The lack of evolution within school buildings continues to bring into question the methods used to teach and the large budgetary expenditures that appear to have little to no impact on student outcomes. Peck et al. (2015) states, “It seems fair to wonder, then, whether technology can be a tool to help transform classroom practices toward student-centered learning or simply be adapted to serve the long-reigning paradigm of teacher-focused pedagogy and curricular control” (p. 26).

If the questions educators ask revolve only around budget and instructional possibilities without changing the actual classroom environment, learning will not occur with any improvement simply because technology was purchased. Technology provides a means to open doors of opportunity, but the student-centered classroom of discovery and inquiry must be established to reap the benefits of the digital world. Richardson (2013) wrote:

It's not about layering expensive technology on top of the traditional curriculum. Instead, it's about addressing the new needs of modern learners in entirely new ways. And once we understand that it's about learning, our questions reframe themselves in terms of the ecological shifts we need to make. (p. 12)

As a result of the divide between the classroom and the world in which the students live, schools across the nation need to transform to student-centered, digital learning environments that create the relevant, personalized, collaborative, and connected classroom experiences for all students. Educational communities must find ways to challenge the current, antiquated teacher-centered methods in a sustainable manner.

Demski (2012) states, "The conventional wisdom in education is that any school reform - be it curriculum, instruction, assessment, or teacher professionalism - is most likely to take hold in schools that have strong leadership" (p. 1). The responsibility to transform classrooms into student-centered, digital learning environments rests with the principal in charge of that building. The digital natives inhabiting the classrooms deserve the transformation necessary to create these digital learning environments. With the "why" defined and the clear link between principal leadership and this transformation, one must thoroughly understand what leadership in this context looks like.

The “What” of Digital Leadership

Leadership in a DLE is a new context. Gurr (2004) states that “e-leadership is a recently constructed concept, with considerable ambiguity, there are significant differences in leading technology-mediated environments” (p. 113). A DLE has the potential to change the dynamics of all the work that occurs within a school building. Gurr (2004) discusses that even though many schools are embarking upon the creation of DLEs, very little work has been done on the implications of leadership within this context. In 2017, Chua and Chua supported this notion stating, “a search for research related to technology leadership finds only a small number of documents and most are at the early state of conceptualization” (p. 74).

A few studies have been completed on principal readiness to lead a digital transformation. Leonard and Leonard (2006) conducted a research study in 12 school districts in North Louisiana that included the perspectives of educators in 149 schools. Much of what was concluded about the digital environment of classrooms echoes the previous discussion that little to no change was occurring in teaching practices despite large budgetary expenditures on digital devices and infrastructure. However, the unique finding in this study was that “a large proportion of the school administrators feel that they are unprepared to supervise teaching and learning technology” (p. 221) and “repeatedly cited their need for technology training, workshops, and continued education” (p. 220). Within this study, 44% of administrators answered that they did not consider themselves qualified to lead a conversion to a DLE in their schools.

Brockmeier, Sermon, and Hope (2005) reported research in the state of Florida that supports the idea of principals lacking the knowledge of how to lead in a DLE. Utilizing the Computer Technology Survey administered to 268 principals across the state, researchers noted that “only 59% of the respondents indicated that they agree or strongly agree that their technology expertise resulted in them being viewed as a technology leader” (p. 53). Additionally, 84% of principals said they need professional development on integrating technology into the curriculum, and 80% would like support on using technology to facilitate organizational change. The researchers concluded that there is a foundational level of technological expertise necessary to lead a DLE. Brockmeier, Sermon, and Hope (2005) stated, “While this expertise is absent in a principal’s repertoire, the promise of technology in education remains in the distance” (p. 55).

As the number of digital devices in classrooms has continued to increase, attempts have been made to identify traits of a leader in the DLE. The National Education Technology Standards for Administrators (NETS-A), also known as the International Society for Technology in Education (ISTE) standards, were developed in 2001 and revised in 2009 and 2016 for use “in supporting digital age learning, creating technology-rich learning environments and leading the transformation of the educational landscape” (ISTE, 2016). There are five standards:

1. Visionary leadership that includes the development and implementation of a shared vision for technological integration.

2. Digital age learning culture that addresses instructional innovation, student-centered practices and engagement.
3. Excellence in professional practice that includes the collaboration with teachers through professional learning communities and professional development opportunities.
4. Systemic Improvement that addresses the data driven continuous improvement model to impact student outcomes and the maintenance of infrastructure to support digital tools.
5. Digital Citizenship that includes ensuring access to meet student needs, modeling ethical use, and modeling and participating in global communication.

In 2005, Anderson and Dexter conducted an empirical investigation utilizing the original ISTE standards composed in 2001 to examine what specific technology leadership attributes made a difference in the success of technology-related programs. The researchers commented that the literature accessed and standards given were “analytic but mostly prescriptive” (p. 53). The standards provide little descriptive information for a leader to understand and reflect on how to implement the areas stated.

Anderson and Dexter (2005) studied 655 schools utilizing a questionnaire format. The format deemed the presence of a technology committee, the principal spending five or more days on technology administration, principal e-mail use, staff development policy that included technology, school technology budget, indication of district support,

awarding of a grant for technology use, and the presence of an intellectual property policy as indicators of technology leadership. Five of these indicators were said to directly link to the ISTE standards. The researchers measured three technology outcomes: net use of the Internet, technology integration into the curriculum, and student tool use. The study examined multiple variables and identified that “only two variables, technology leadership and students per computer, were statistically significant predictors across all three outcome variables” and “technology leadership clearly was the strongest predictor for all three” (p. 70). It is worth noting that the outcomes measured in this study merely address technology usage and integration without defining what integration actually means. Although the indicators selected were based upon the ISTE standards, they seem to aim at managerial type behaviors such as establishment of committees, email use, and presence of policies, rather than leadership traits that describe the actual actions and outcomes of these committees, policies, and communications. This continues to support that most of the research surrounding leadership in a DLE involves the “why,” the need for a transformation to a DLE, or the “what,” prescriptive lists of traits without any description of the how these lists are actually carried out in practice.

Developing the “How” of Digital Leadership

In 2013, Neumerski composed a review of instructional leadership literature that highlighted the absence of a discussion surrounding the “how” of leadership. This review discussed lists of adopted leadership standards that “provide a general sense of what an administrator should do, but not enough guidance as to how” (p. 319). The author states that making attempts to understand leadership behaviors in “context-neutral” terms leads

research to become mere lists of behaviors. This attempt to decontextualize leadership creates checklists of what must be present without an understanding of how these behaviors are carried out in practice.

Lists of standards developed by educational technology organizations such as ISTE provide a general, concise description of what a principal of a DLE should be. However, there is limited literature addressing what a principal of a DLE should do or how these actions will be carried out in order to transform learning. Analyzing the literature describing the principal of a digital learning environment produces a list of six emerging traits. A description of each of the six within the context of a DLE follows. These traits are an attempt to define the “what” of principal leadership in a DLE across literature sources.

Possession of a Clear Vision and Established Values

Levin and Schrum (2012) conducted research through multiple case studies of award winning models for success in technology-rich schools. Their research summarized findings of eight cases of public, diverse school communities that had leveraged technology as a school reform effort to meet the needs of their student populations. In all eight cases, an identified key factor of success was the possession of a clear vision.

A clear “vision of what you want student learning to look like in your school” (Demski, 2012, p. 7) is a necessity for principals of a DLE. Principals must begin the journey to transformation into a DLE with a guiding principle of doing “what is best for kids” and using that as “the North Star, that’s what we orient ourselves to” (Levin &

Schrump, 2012, p. 39). The “why” behind the transformation must be clearly articulated into a long-range vision that every child “is going to have access some way somehow to some sort of personal technology” (Levin & Schrump, 2012, p. 82).

Dexter (2011) studied leadership in five middle schools with laptop programs and found that each school had a clear vision rooted in technological equity, providing access for “any student at any time” (p. 174). The first piece of a digital principal’s vision must be to ensure equitable access. Dr. Mark Edwards, former superintendent of Mooresville Graded School district, is quoted:

Well, first and foremost is the access and the opportunity created for students and for staff. We had a serious digital divide, an economic divide, a racial divide, and with no real means to address it other than hoping that traditional means would work. And now I hear almost every single week some parent or someone telling me that this is the first time that they feel like their child has a level playing field or that they have the opportunity. (Sheninger, 2014, p. 122)

However, the vision cannot simply be about accessing devices but rather must be rooted in established instructional values mirroring the ideals of a transformative leader.

Sheninger (2014) wrote:

Leaders must begin by articulating a clear vision to their staff that, if we are to change, we must be willing to shed some strongly embedded ideals, opinions, and behaviors that have shaped our schools for over a century. The consensus has to be that every student can and should learn, and that educators must learn how to push us to become even better. (p. 32)

This vision is rooted in equity but explicitly illustrates the instructional environment needed to meet the needs of today’s learners. Sheninger (2014) further states that the “principal must be an active and public champion for all students, staff members, and the

school implementing a vision of fully integrating learning technology” (p. 43). For establishing a “vision and a strategic plan for increasing authentic engagement of students in the teaching and learning process, an emphasis must first be placed on the pedagogy” (Sheninger, 2014, p.159).

Educators cannot ignore the fact the digital natives served in our schools have a “digital civil right” (Chen, 2010) to technological access. The principal of a DLE must realize that access plus a vision for the transformation of instructional practices can lead to results similar to those summarized by Dr. Joe Hairston, superintendent of Baltimore County School district.

We have literally changed the lives, beliefs, and value system of human beings on the positive side. And we have to remember in America that the system is driven by beliefs and values. We have human beings who now believe that there is a future for them. That’s powerful. (Sheninger, 2014, p. 110)

A clear vision for equitable access and instructional transformation must be cultivated by a principal of a DLE in order to truly meet the needs of all students regardless of gender, race, socioeconomic status, ethnicity, or disability.

Establishment of an Innovative, Collaborative Culture

The leadership of the principal establishes the culture of a school. A school that is transforming into a DLE must establish a culture that is positive, supportive, and encourages teachers to take risks as well as not to fear failure. A positive culture is important as teachers embark upon the change to establish a DLE. Often in the first years of this change, “every teacher feels like a first year teacher” (Levin & Schrum, 2012, p.129). Teachers need to feel challenged yet supported during this transition. Principals

can establish this type of culture by “doing whatever it takes to encourage and support teachers who are willing to use technology and then celebrating their successes” (Levin & Schrum, 2012, p. 93). Todd Wirt, former principal of Mooresville High School, stated that he often told teachers “just try something new this week, try one thing new this week” (Levin & Schrum, 2012, p. 119). In order for a DLE to be truly realized, a culture must be established that expects everyone to dive in and try something new without fear of failure or criticism.

Principals of a DLE must foster this risk-taking culture and empower teachers to assist in leading the instructional shift by supporting early adopters and risk takers. Shenger (2014) states, “Digital leadership focuses on fostering intrinsic motivation as the primary catalyst for change” (p. 40). This leadership model leads to the establishment of the Type Z organization detailed in the transformational leadership description (Leithwood, 1992). In this model the leader facilitates change by establishing a culture that empowers teachers to attempt to make improvements in their practices based on intrinsic factors and the “moral obligation” to bring instruction into the twenty-first century (Levin & Schrum, 2012). Shenger (2014) further states, “empowering teachers to shift their instructional practices and giving them the needed autonomy to take risks and work on effective integration techniques worked to intrinsically motivate them to change” (p. 67). As teachers work to transform their practices and take instructional risks, a culture of innovation begins to emerge.

For this type of innovative culture to be sustained, collaboration must be fostered. Robert Farrace summarizes, “Teaching is no longer an isolated profession” (Demski,

2012, p. 3). Sheninger (2014) describes, “Purposeful peer interaction within and beyond the school is crucial. Student learning and achievement increase substantially when teachers work in learning communities supported by school leaders who focus on improvement” (p. 55). In practice, this translates to teachers working together in professional learning communities to look closely at student data or co-teaching as a common practice (Levin & Schrum, 2012, p. 32). Additionally, collaboration is seen as a skill that extends beyond the school building. Schools that are working to establish a DLE often turn to the “go and see” model of collaboration by researching existing DLE schools and visiting to reflect and improve upon instructional practices.

Operating as a Connected Learner

Principals of DLEs do not need to be technological experts as it pertains to the specific tools and skills in order to lead the transformation. However, they have to be willing to embrace the same learning journey that they expect their teachers to embark upon to meet the needs of their students. Robert Farrace describes the important role of the principal as a learner: “What’s important is that they commit to the learning of technology, and the sharing of that learning as widely as they can” (Demski, 2012, p. 4). Participating in the transformation to a DLE as a learner models the behaviors that support the growth of a DLE. Levin and Schrum (2012) describe the superintendent of Godfrey-Lee Public Schools in Wyoming, Michigan as a relentless “learner and energizer” (p. 58).

As a connected learner, the principal pledges to improve her skills and knowledge continuously. Sheninger (2014) states that his connectedness through social media gave

him the needed knowledge to integrate technology effectively. He attests, “For my school, connectedness was the original catalyst for change. It also enabled us to form numerous collaborative partnerships with an array of stakeholders who have assisted us along the way” (p. 65). Through the use of social media tools such as Twitter and Facebook, Sheninger describes the establishment of a professional learning network that shapes practice. This learning process and the sharing of the knowledge gained has become a catalyst for teachers to productively utilize social media as a means of professional development.

Connectedness is a standard trait needed for a principal of a DLE. The leader must plug in to the digital world in order to both improve her practices and understand the digital world for which educators prepare their students. Sheninger (2014) states,

Digital leadership requires connectedness as an essential component to cultivate innovative practices and lead sustainable change. It is not an option, but a standard and professional obligation. The power and value of a connected learning model are tough to ignore. Leaders become the epicenter of their learning and determine what, where, and when they want to learn. (p. 122)

However, the leader of a DLE must not just be connected through the digital world but also must maintain a connection to her school environment and the practice of communicating without a digital tool. A leader cannot be successful while remaining in her office. In one case study, a teacher described her feelings about leaders: “If they are not connected, out and about here, don’t know how many ELLs are in your classroom, what challenges you face, then they are not really leading” (Levin & Schrum, 2012, p. 58). Principals of a DLE have to carefully model the balance of digital connectedness

and “the art of human conversation and unplugging the devices” (Sheninger, 2014, p. 190). Teachers have to see the principal as a digitally connected learner, as a well-versed leader who understands the challenges within the school environment, and as an effective communicator with or without a digital tool.

Focusing on Partnerships

Collaboration within the school building is essential as is connecting and exchanging ideas with other educators in DLEs. As leaders collaborate to improve their practices or to obtain resources to support a DLE, partnerships will form that strengthen the transformation and lead to the ability to sustain the change. A principal of a DLE has to constantly focus on outreach and communication that will foster partnerships with varied entities.

Sheninger (2014) describes this type of communication as a “hybrid construct” that blends traditional methods such as letters, newsletters, website updates with the “systematic use of social media tools to create a dynamic, two-way system that will increase engagement with all stakeholders” (p. 78). This consistent and hybrid method of communication will allow consensus to be built that will support and facilitate the change occurring within the DLE. The principal becomes “the storyteller-in-chief” for her school, creating a transparent culture and an avenue to positively share successes (p. 99). Sheninger (2014) describes this process as branding school culture that elevates the school pride of the community and facilitates the formation of strong community relations.

Just as access to a digital world brings down the walls of separation between students and the world, a principal of a DLE must leverage partnerships to pull back the curtain enclosing education and allow partners to come into the schools. The principal must become an “integral member of the community” (Levin & Schrum, 2012, p. 73). Through this community connection, schools can build needed partnerships. For example, colleges and universities can be leveraged to provide professional development as well as opportunities for students to connect with “the hopes of opening additional hearts and minds to the possibility of college success” (Sheninger, 2014, p. 180). Additionally, local businesses and organizations can provide financial support or create experiential opportunities to maximize student learning through connections with experts in the field.

Partnerships with the community, colleges, universities, local businesses, civic organizations, and social groups are vitally important to a digital learning environment. Perhaps the most important piece in the sustainability of a DLE is the partnership formed with the parents of the students being served in the school. Parents need to receive early, regular communication and have a voice in the transformation process in order to be supportive of the move to utilizing digital tools as a part of their children’s education. Levin and Schrum (2012) highlight the need for parent communication: “Because parents didn’t have the same kind of access to technology when they were going to school, this change in their children’s education requires that they are consulted and included in the process” (p. 195). A principal of a DLE will need to be an effective communicator with

an intentional focus on the development of partnerships to support and sustain the transformation to a digital learning environment.

Designer of Professional Development

Cuban (2018) stated, “Classroom change is hard and steady work, sustained support to enhance teachers’ expertise and expand their capabilities, at the minimum, is essential” (p.183). Peck et al. (2015) concluded that in order to harness the power of a DLE, “educational leaders must provide teachers with proper training in effective instructional practices” (p. 26). The principals of DLEs must emphasize the pedagogy desired to move to student-centered, innovative classrooms while not ignoring that many educators will need support in learning the actual tool itself and the applications available. This is often accomplished through a professional development model rooted in support and modeling.

Walton Middle School in Albemarle County Public Schools, Virginia, describes its professional development as a culture where “both the teachers and the administration make an ongoing effort to share and model new ideas for using technology and to help one another learn” (Levin & Schrum, 2012, p. 24). Professional development is a necessary focus and must be on going and consistent. To change the educational culture, intentional professional development differentiated to meet the needs of the adult learner must be a top priority. This differentiation may be most beneficial when teachers are allowed to be the “originators of their own learning” (Schrum & Levin, 2009, loc. 1385), by establishing their own learning needs. In the Mooresville Graded School District in Mooresville, North Carolina, professional development is “related to continuous self-

assessment” and “based on the results of regular needs assessments” resulting in a “menu of professional development differentiated by level” (Levin & Schrum, 2012, p. 132).

Schools transforming to a DLE will be shifting from a teacher-directed to student-centered learning environment where students are allowed to create and experience utilizing a digital device as a tool to support this process. This paradigm shift will take time and support. Support for teachers, modeling by leaders, and tiered professional development will be essential to this shift. Additionally, to develop the staff’s capacity to make the change, principals will have to conduct regular formal and informal observations and “provide honest, constructive, usable feedback” that is supported by peers, coaches, or administrators (Levin & Schrum, 2012, p. 153).

The principal has a direct impact and at times bears the sole the responsibility for professional development. This piece of instructional leadership is an important lever of any educational change. Sheringer (2014) states:

Little things such as support, encouragement, flexibility, and modeling have gone a long way to provide my staff with the confidence to take risks with technology and create meaningful learning activities that foster creativity, problem solving, and participation by all students. (p. 69)

Utilizing these strategies coupled with relevant, tiered professional development focused on the pedagogical shifts and needed technological supports will encourage the transformation to a DLE. The principal of a DLE must have a foundational understanding of how these strategies will be implemented into practice.

Strategic Planner

A vision without a plan will not come to fruition. It is not enough to simply be able to develop a picture of a student-centered, DLE. A principal of a DLE must also be able to identify the steps necessary to make the vision a reality.

Rose Hill Junior High School in the Lake Washington School District in Redmond, Washington is one of the award winning, technology rich schools studied by Levin and Schrum (2012). In this school the “leader believes in planning, planning, and more planning, having no hidden agenda, and being intentional and transparent with every decision that is made” (p. 51). The planning in this school is further explained: “Planning should be data-driven, and this school’s leadership team uses data to make decisions about both student and teacher performance” (p. 51). The success of this technology rich school is rooted in the leader’s ability to plan to make the vision a reality.

There are systemic pieces that must be planned for including the types of instructional programs that will engage learners, blended learning opportunities, and collaborative learning spaces. Additionally, a principal of a DLE must develop “thoughtful school-based plans for helping students overcome obstacles they may face because of poverty and other factors attendant to their family backgrounds” (Peck et al., 2015, p. 26). A principal of a DLE must be able to “see the big picture and take a systems approach to making changes” happen (Levin & Schrum, 2012, p. 51). A DLE that authentically shifts instructional practices must be strategically planned and implemented.

Digital Leadership Concluded

The principal is “at the core of the shift” (Richardson, Flora, & Bathon, 2013, p. 145) to a DLE. In ISTE’s published work entitled *Revolutionizing Education through Technology: The Project Red Roadmap for Transformation* (2012), it is simply stated in the chapter on school leadership that “if a school principal expects students and teachers to use technology tools frequently, they will do so” (p. 53). These types of statements reinforce the power of a leader without addressing the “how” to build capacity in those leaders and leverage their leadership to impact learning.

The digital journey in schools has continued to progress while the gaps in the research as to how to lead the instructional transformation from a teacher-driven environment to a student-centered, digital one continue to exist. In agreement with Gurr (2004), the established views of leadership “will remain important, but simply translating these into new environments is not sufficient” (p. 122). In order to add to the literature, research must be conducted on the skills, qualities and behaviors of principals in practice in DLEs in order to determine the “how” of leadership in this context.

Conceptual Framework

Analyzing the literature describing the principal of a DLE produced a list of six traits. These six traits are the summarized “what” and “why” of leading a DLE. The traits were used to frame my research study and conceptualize the “how” of leadership in a DLE. The study will expand upon the prescriptive list of what a principal of a DLE must be by providing examples of what the principal does in a DLE. The research is meant to provide examples of the “what” and “why” in practice. Figure 1 visually

represents the conceptual framework that served as the foundation of my inquiry. A brief description of the “what” of each trait follows the figure.

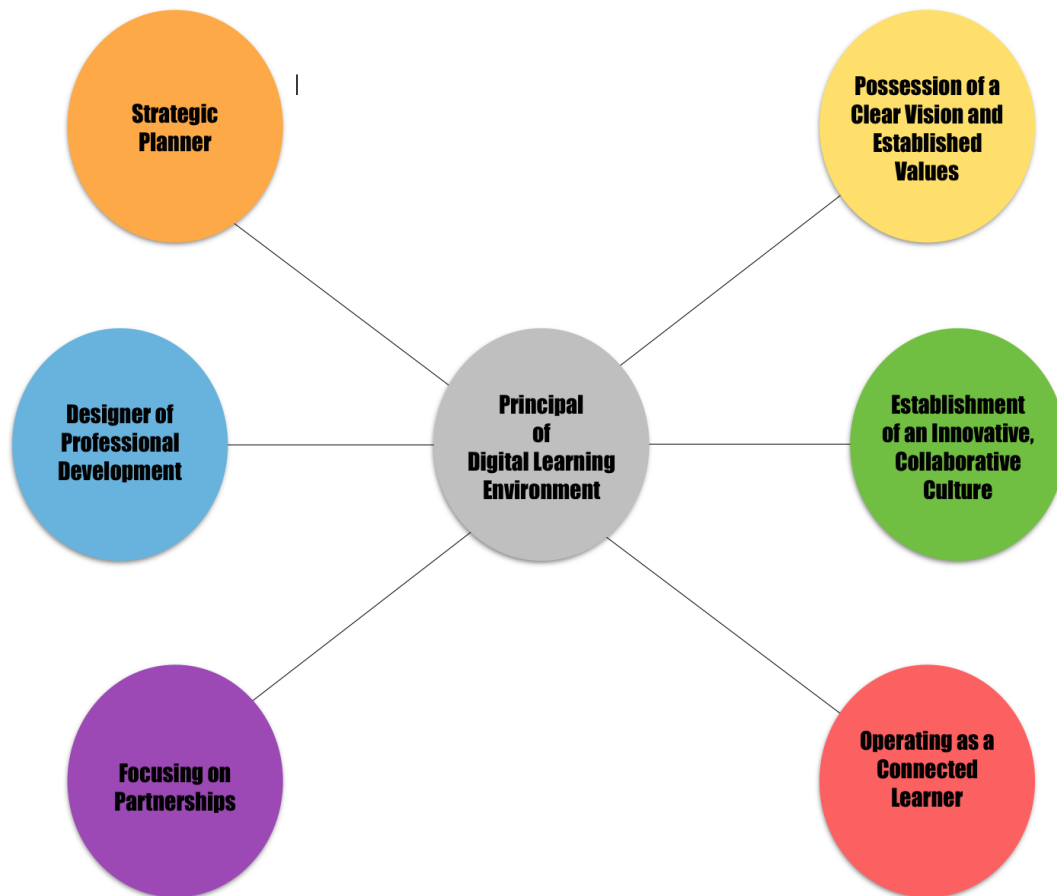


Figure 1. Traits of a Principal of a Digital Learning Environment.

Clear Vision and Established Values

The leader of a DLE must begin by possessing a clear vision for technological access for all students. Dexter (2011) described this type of access as providing equitable opportunity for “any student at any time” (p. 174). Additionally, the leader must have a clear vision of “what you want student learning to look like in your school” (Demski,

2012, p. 7). The vision must be centered in values of doing “what is best for kids” and using that as “the North Star” to orient the work (Levin & Schrum, 2012, p. 39).

Establishment of an Innovative, Collaborative Culture

As a school moves into a student-centered DLE, teachers will need to feel challenged yet supported as they take instructional risks and try new strategies to meet the needs of learners. This type of change will require a leader to “encourage and support teachers who are willing to use technology and then celebrate their successes” (Levin & Schrum, 2012, p. 93). The culture of risk taking will require collaboration. Robert Farrace summarizes, “Teaching is no longer an isolated profession” (Demski, 2012, p. 3). A leader of a DLE will be charged with developing a school culture that promotes collaboration, innovation, and leads to improvement in learning.

Operating as a Connected Learner

A leader of a DLE will need to model the behaviors of continual learning and reflection. Levin and Schrum (2012) described one leader as a relentless “learner and energizer” (p. 58). This type of learning occurs in a connected environment. Sheninger (2014) described the power of connectedness through social media as a tool for professional growth and reflection. Levin and Schrum (2012) described that connectedness goes beyond social media and includes connecting with the people in the school environment and the practice of communicating without a digital tool. A leader of a DLE will operate in a connected environment that models learning as a core behavior.

Focusing on Partnerships

A principal of a DLE has to constantly focus on outreach and communication that will foster partnerships with varied entities. Through this process, the principal becomes “the storyteller-in-chief” for her school, creating a transparent culture and an avenue to positively share successes (Sheninger, 2014). Visibility is key to being able to share the story and the principal must become an “integral member of the community” in order to be able to do so (Levin & Schrum, 2012, p. 73). The principal’s communicative ability will be key to fostering partnerships throughout the community.

Designer of Professional Development

Schools working to transform to a DLE will be shifting from teacher-directed to student-centered learning environments that utilize a digital device as a tool to support this change. This instructional shift will take time and support. Peck et al. (2015) concluded that in order to make this shift and harness the power of a DLE, “educational leaders must provide teachers with proper training in effective instructional practices” (p. 26). Professional development will be a key catalyst for this transformation. The principal of a DLE will be the lead designer of the professional development offered within the school.

Strategic Planner

In one DLE, Levin and Schrum (2012) described the leader as believing in “planning, planning, and more planning, having no hidden agenda, and being intentional and transparent with every decision that is made” (p. 51). The design, implementation, and continued improvement of a DLE require intentional, strategic planning. This type

of planning requires the principal to be able to “see the big picture and take a systems approach to making changes” happen (Levin & Schrum, 2012, p. 51).

Summary of the Literature Review

The literature provided a list of traits that can be used by educators to prescribe what is needed in a digital leader. These traits were used to create a conceptual framework that established criteria to examine two principals in practice. This framework was then used to frame the research study in an attempt to flesh out what the traits looked like in practice in a DLE. Careful consideration was given to participant selection and the methods used in order to provide a robust picture of the skills, qualities, and behaviors in practice of a leader of a DLE. The next chapter will describe the case study methodology that used interviews, focus groups, observations and document analysis to create this illustration.

CHAPTER III

OUTLINE OF PROCEDURES

Educational research defining instructional leadership is plentiful. The skills and behaviors of a transformational leader are also well illustrated in the literature. As schools evolve, the importance of context has been identified as it relates to the needed style of leadership. Literature describing the needed traits of a principal in a DLE has begun to emerge but how these traits translate into practice remains lacking.

Staples, Pugach and Himes (2005) state, “for technology to have an enduring effect, principals themselves have to take an active role in defining and communicating a sensible role for technology integration” (p. 302). This research study was an attempt to answer the following research question: What do the skills, qualities, and behaviors of principals look like in practice in digital learning environments? This study provides a profile of the skills, qualities, and behaviors of two current principals in action in order to define the “how” of leadership in a DLE.

Methodology

Case studies can be used to study one individual, multiple individuals, an event, an entire entity, or a program. Yin (2003) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon, the case, in depth and within its real-world context especially when the boundaries between phenomenon and context may not be clearly evident” (p. 16). Creswell (2007) states that case study methodology is a type of

design in qualitative research, or an object of study, as well as a product of inquiry” (p. 73). Multiple case studies allow the researcher to examine multiple cases through a replication design, therefore creating more compelling and robust evidence (Yin, 2003).

This qualitative research study falls into the category of a case study because it is an “in-depth description and analysis of a bounded system” (Merriam & Tisdell, 2016, p.37). The “case” for this study is the leader of a DLE. The leader fits Stake’s (2006) description of the case as a “noun” not a “verb, participle, or functioning”. This research study included two case studies of principals in DLEs within their school contexts. Creswell (2013) describes this methodology as the use of “multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual material, and documents, and reports), to report a case description and case-based themes” (p. 97). This research study examined two bounded systems, principals of DLEs, using detailed data collection involving multiple sources of information (observations, interviews, focus groups and documents) to describe the cases, compare the cases and generate case-based themes.

Participant Selection

Two principals of DLEs were selected and studied during this research study. I used purposeful sampling (Creswell, 2016, p. 109) to select participants who served as cases to illustrate the “how” of leadership in a DLE. In order to select the two candidates to be studied, I developed a list of traits informed by the literature that I gave to district level leaders (Appendix A). I asked district level leaders – superintendents or assistant superintendents of curriculum and instruction – to review the list of traits. In both cases,

the superintendents nominated the principals identified as appropriate models of the list of traits provided.

Participant selection proved to be more difficult than I had thought. I began my inquiring with my own superintendent, Dr. Lynn Moody, to assist in the identification of districts that identified as 1:1 programs. In addition to leading a 1:1 district, Dr. Moody is a member of Digital Promise's League of Innovative Schools. Digital Promise (2018) "connects and rallies the most forward-thinking leaders of the nation's school districts". As a result of her work with this group, she has connections with school district leaders nationwide. In addition, Dr. Moody works with The Friday Institute for Educational Innovation. This institute's mission is, "Advancing education through innovation in digital-age teaching, learning and leadership, we bring together students, teachers, researchers, policy-makers, educational professionals and other community members to foster collaborations in improving education" (Friday Institute, 2018).

Based upon her connection with these two organizations, I was able to contact varied superintendents but with little response initially. Dr. Moody personally contacted district leaders to ask them to review the information I sent to them and nominate a principal if possible. In many cases, the leaders they would have nominated were no longer in school based leadership positions. In other cases, the leaders claimed they did not have anyone who matched the criteria and was leading a DLE. After a lengthy search, I was able to identify three candidates. All three candidates were principals at the elementary level. One candidate was located in Texas and was eliminated due to the extensive travel that would have been required to complete the study. Finally, two

candidates were selected. In order to maintain confidentiality, I will use pseudonyms for each principal and her school throughout the study.

Barbara Taylor currently serves as principal at Logan Elementary School (LES). The school is located in a rural town and identifies as a one to one device to student environment. LES is a Title One school that reports over 50% of its students as eligible for free and reduced lunch. Ms. Taylor has spent most of her career at the elementary or pre-school level as a tutor, teacher, assistant principal, and principal. Her staff described Ms. Taylor as a “very direct” and “supportive” leader.

Karen Weaver is the principal at Stone Ridge Elementary School (SRES). The school is located in a suburban area and identifies as a one to one device to student environment. SRES is a Title One school that reports over 90% of its students as eligible for free and reduced lunch. Ms. Weaver started her career in education as a high school biology teacher but has spent her administrative tenure at the elementary school level. The staff at SRES described Ms. Weaver as “authoritative” and simply “outstanding”.

The participants included in this study all lead busy lives. In an effort to encourage participation and meaningfully engage in dialogue, interviews and observations were scheduled at the convenience of the participants and were limited to a maximum of 60-minute sessions at a time. All participants consented to participate as a human subject as required by the Institutional Review Board.

Research Design

The study examined two principals within their school contexts, triangulating the data through interviews with the leaders and focus groups of teachers, observations, and

document analysis. Neumerski (2012) stated that in order to get at the “how” of leadership, studies should describe leaders “in interaction with one another, their followers and context around the work of teaching and learning” (p. 324). Applying those thoughts, I utilized varied means of researching the actions of the two principals of DLEs.

Interviewing is “the best technique to use when conducting intensive case studies of a few selected individuals” (Merriam & Tisdell, 2016, p. 108). Interviews were conducted with each principal three times over the course of the study in a semi-structured format. This format allowed questions to be flexibly worded while requiring specific information to be addressed by each principal. The semi-structured interview allowed “the researcher to respond to the situation at hand, to the emerging worldview of the respondent and to new ideas on the topic” (Merriam & Tisdell, 2016, p. 110).

I conducted multiple interviews in order to provide time for in-depth dialogue prompted by varied questions on leadership styles in a DLE as well as to member check regarding accuracy of data previously recorded. Each interview utilized questions based upon the conceptual framework developed from the literature. These questions can be found in Appendix B and are color coded to correspond to the trait in the conceptual framework in Figure 1. The first interview included introductions, the purpose of the study, a description of the school setting, the principal’s career path, and questions related to vision, values, and culture. The second interview focused on culture, collaboration, professional growth, connectedness, and partnerships. The final interview addressed

professional development, strategic planning, as well as any additional areas that required clarification or that emerged from the study.

Focus groups of teachers were conducted to illustrate teachers' unique perspectives of the principal. Hennick (2014) explains the uniqueness of focus group interviews:

Perhaps the most unique characteristic of focus group research is the interactive discussion through which data are generated, which leads to a different type of data not accessible through individual interviews. During the group discussion participants share their views, hear the views of others, and perhaps refine their own views in light of what they have heard. (p. 2-3)

I interviewed three teachers in a focus group within each principal's school. I conducted one focus group interview per school. An email invitation was sent to the principal who then forwarded it to staff within the school to identify volunteers for participation. The focus group at LES included an academically gifted teacher, a fourth grade teacher, and a lead teacher. These teachers had been at LES between one and 10 years. The focus group at SRES included a first grade teacher, a fourth grade teacher and the media specialist. These educators had been at SRES between two and seven years. Focus group interviews followed a semi-structured format with the questions corresponding to the traits listed in the conceptual framework (Appendix C).

I used observations to examine the leaders in their school settings that provided a "firsthand encounter with the phenomenon of interest rather than a secondhand account of the world obtained in an interview" (Merriam & Tisdell, 2016, p. 137). Additionally, observations served as an important part of this research study as they yielded "detailed

information that may not be divulged during discussions or in written documents” (Creswell, 2016, p. 117). Observations of the participating principals were conducted on two occasions. At both schools, I observed each principal once during an open house event and once during a professional learning community meeting (called Crew at SRES). An observation protocol (Appendix D) was used that allowed for the researcher to sketch the setting as well as record the observed interactions.

The final data source I used was document analysis. This form of research allows for examination of leadership artifacts without “intruding upon or altering the setting in the ways that the presence of the investigator might when conducting interviews or observations” (Merriam & Tisdell, 2016, p. 162). The documents analyzed included the school improvement plans at both schools as well as the Twitter activity of both principals. Neither of the schools had professional development plans or digital learning plans.

Combined interview time with both participants amounted to approximately six hours. This time provided rich dialogue. Focus groups were a combined time of two hours. This time provided for in-depth conversations with small groups of educators who had experienced the leadership of each principal and could describe the results of their leadership. I spent over three hours observing each principal. Observations were a critical piece of the data collection process as it allowed me to witness many of the experiences described in the interviews and focus groups. I spent an additional four hours reviewing school documents and social media feeds of each principal and school.

This time was beneficial to gain insight into what was publicly shared about the school, its vision, and its values.

Data Analysis

During the interviews, I made note of any reactions to specific comments made by the respondent or respondents as well as to pace the interview. All interviews were audio recorded and transcribed verbatim. The interview transcripts were analyzed and coded utilizing a priori coding, “codes created beforehand and applied to the text” and open coding, “codes derived from the text” (Blair, 2015, p. 16-17). Evidences of practice located in the interview transcripts had a corresponding predetermined color code to link it to the traits found in the conceptual framework. Evidences of practice not linked to the conceptual framework had a predetermined color code as well.

Observations were recorded utilizing both “descriptive (notes about what happened) and reflective (notes about experiences, hunches and learnings)” field notes (Creswell, 2016, p. 119). Every effort was made to record notes while in the observation setting with additional reflective details added immediately after withdrawing from the area. Observation field notes were analyzed and coded in the same format as the interview notes.

Documents for analysis were gathered through examination of the school website as well as by searching for the principals’ Twitter feed. In order to analyze the documents collected, I used content analysis maintaining the centrality of the researcher to the process of analysis (Merriam & Tisdell, 2016, p. 179). This means that I acted as

an investigator who searches for concepts as they relate to the conceptual framework within each document and made note of themes as analysis occurred.

At the conclusion of the analysis of each case study, I summarized the findings for each study separately. After summarizing the findings, I reviewed the data to compare and contrast for identification of any over-arching themes present in both cases. The over-arching themes are reported to depict a profile of the skills, qualities and behaviors of current principals of digital learning environments in action.

Limitations of the Research and the Researcher

Case study research has been viewed as a “less desirable form of inquiry than either an experiment or survey” (Yin, 2003, p. 19). Varied reasons are reported for this view and must be addressed in order for case study methodology to result in a respected, robust work of research. To address rigor, I used a systematic protocol for conducting, coding and analyzing all data sources as described in the data analysis section.

Perhaps the largest concern as reported by Yin (2003) is the inability to generalize case study findings. As a practitioner who seeks solutions and generalized answers, I had to fight against this pull and open my mind to subjective knowledge that is contextualized through the research process. The idea that there is not one answer to a research question is difficult for me. I had to work to avoid making generalizations based on the case studies in an attempt to identify a singular answer to a complex question. The critique of a critical peer assisted me in avoiding generalizations.

Credibility

During qualitative research “what is being investigated are people’s constructions of reality – how they understand the world” (Merriam & Tisdell, 2016, p. 243). As a qualitative researcher, I had to consistently question if my findings represent what is actually present in the research in order to establish the validity or credibility of the study. In order to do this, I used triangulation of multiple sources of data, which means “comparing and cross-checking” observations collected at various locations with interview data from principals and the focus groups as well as the document analysis findings. In addition, I used peer examination by “asking a colleague to scan some of the raw data and assess whether the findings are plausible, based on the data” (Merriam & Tisdell, 2016, p. 249).

During the peer examination, I asked Dr. Julie Morrow to review data collected and compare it to themes that were identified to assess the plausibility of the study. Dr. Morrow is an assistant superintendent for curriculum and instruction in a district that is a one to one device to student district. Dr. Morrow also previously served in the same role in a nationally recognized one to one district. She has also served in the role of principal in varied schools. Additionally, Dr. Morrow served as a school transformation coach for the North Carolina Department of Public Instruction. In this role, she directly worked with principals in low performing schools across the state. Dr. Morrow has conducted multiple qualitative research studies within our district including coding our grand rounding processes to discern trends and patterns. Her review of data collected and comparison to the themes identified supported the conclusions drawn from my analysis.

Positionality

I currently serve as a high school principal who provides a take-home laptop to every student. I have served at this school since the original deployment of laptops. My position could be a source of bias. Personal biases could have surfaced when reviewing and analyzing the data based upon my personal experience in the field and in my coursework.

The entire district in which I serve, Rowan-Salisbury Schools, is involved in a 1:1 student to device program. In order to eliminate the possible negative impact of my positionality, I would like to have identified leaders outside of my school district. Unfortunately this did not prove to be the case as one of the principals studied works in the same district as I do. Throughout the study, I attempted to conduct my research with caring reflexivity to determine if I was describing or prescribing. This is an additional area that I asked my critical peer to examine.

Subjectivity

I was extremely careful to bracket my personal beliefs about digital leadership to prescribe the themes found in my data analysis. My passion for the topic was important to motivate me to continue, but I had to be conscious at all times of any bias I may have possessed. I avoided using my bias to make interpretations or draw conclusions while examining my research. Robert Stake (1995) states, “case study work hastens to draw conclusions” and “good case study is patient, reflective, willing to see another view” (p. 12). As a researcher, I had to practice patience and reflectiveness in order to maintain objectivity by utilizing reflection and dialogue with a critical peer. This approach

allowed me to see my research through another's view and lessen the impact of my potential bias.

Trustworthiness

Trustworthiness in qualitative research is largely based upon the rigor of the study. Merriam and Tisdell (2016) described that rigor in a qualitative study derives from “the researcher’s presence, the nature of the interaction between researcher and participants, the triangulation of data, the interpretation of perceptions, and rich, thick description” (p. 191). I collected all of the data and believe that the time spent in data collection as well as the perceived authenticity of the interactions with the participants yielded rich dialogue and results. Additionally, the varied types of data sources, interviews, focus groups, observations, and document analysis, were used to triangulate the data.

The research design allowed for a rich, thick description to be developed. Merriam and Tisdell (2016) defines this type of description as one that “refers to a description of the setting and participants of the study, as well as a detailed description of the findings with adequate evidence presented in the form of quotes from participant interviews, field notes, and, documents” (p. 257). The results of this study are described with adequate context so that a reader should be able to “determine the extent to which their situations match the research context, and, hence, whether findings can be transferred” (Merriam & Tisdell, 2016, p. 258).

The adequate engagement in the data collection, the reflexivity of the researcher, the peer review process, the triangulation of the data, and the thick description all support that the study is a trustworthy account of the results generated by the research design.

Research Significance

The study is relevant to current and future educational initiatives. As school districts explore and implement DLEs, it is essential that they know who will be capable of leading the change necessary to meet the needs of students. The gaps in the literature supported the need for a study about the skills, qualities and behaviors of acting principals in DLEs. This study provides a profile of two current principals of DLEs that could influence principal reflection, principal preparation programs of study, district hiring practices and professional development opportunities.

Into the Field

As an educator, I am fascinated by the shifts in educational thoughts and strategies to meet the needs of learners. However despite these shifts, public education in The United States has remained largely the same over time. As Sheninger (2016) shared, digital purchasing is increasing annually nationwide. This purchasing illustrates that educational technology has become a focus for many schools as they work to personalize education and move to a more student-centered environment.

However, previous attempts at change have shown that simply purchasing tools will not fundamentally transform practice. Levin and Schrum (2012) stated “this is the promise of technology; yet it has not always been realized. However, we know that in many places technology has been an effective catalyst for change, while in other places it

has not” (p. 3). What then makes the difference between unfilled promises of change and those schools that experience true shifts in their instructional practices? Fisher and Waller (2013) found in their study of 328 Texas principals that teachers’ abilities to integrate technology effectively were positively correlated to the principal’s technology leadership proficiencies. Education continues to invest in technology as a tool to support a shift in practice and the principal is recognized as a key lever to move this shift forward. In this study, I chose to examine “how” the leader’s influence promotes this change to a student-centered DLE.

Throughout a review of the literature, I was able to examine instructional, transformational, and transformative leadership styles. This review provided insight into the “what” of each style as well as historical links to when each became important as education shifted over time. Hallinger (2011) argues that there is not a “one size fits all” leadership style but rather varied leadership styles that are impactful depending upon the context of the school. The focus of this research is the context of a DLE.

Further review of the literature as it relates to the context of a DLE provided a prescriptive list of traits such as those stated in The National Education Technology Standards for Administrators (NETS-A), also known as the International Society for Technology in Education (ISTE) standards. The literature review allowed some expansion of these traits and culminated in a conceptual framework that was used to shape a research study designed to answer the research question: What do the skills, qualities and behaviors of principals look like in practice in digital learning

environments? The conceptual framework, shown in Figure 2, included the following six traits:

1. Possess a clear vision and established values
2. Establishment of an innovative, collaborative culture
3. Operating as a connected learner
4. Focusing on partnerships
5. Designer of professional development
6. Strategic planner

From this conceptual framework that detailed the “what” of leadership in a DLE context, I developed participant selection materials as well as interview questions to be used with the principals selected and focus groups. I entered the field to examine the leaders in action through the interviews, focus groups, observations, and document analysis processes.

The two principals selected, Barbara Taylor and Karen Weaver, serve at two high poverty elementary schools in different community settings. Each principal’s superintendent nominated her for the study because she modeled the traits stated in the conceptual framework. My next step was to study Ms. Taylor and Ms. Weaver to describe what these traits looked like in practice. As I began my research, I reflected upon the view of Richardson, Flora, and Bathon, (2013) that the principal was “at the core of the shift” to a DLE (p. 145). The experience in the field was designed to add to the knowledge as to “how” principals could be the catalyst for this shift. The remaining chapters of this work will illustrate the findings of this experience in the field, what

themes emerged from this research, and how the data collected can be connected to or cause an evolution of the conceptual framework.

CHAPTER IV

FINDINGS

Utilizing the methodology described in Chapter 3, the research study examined two elementary principals in DLEs. The study was conducted to illustrate how the skills, qualities, and behaviors of these leaders looked in practice. The design of this study was an attempt to expand upon the current literature available about leadership in a digital context and create a descriptive, conceptual summary rather than a prescriptive list.

For each principal, I will provide a description of her school as well as her background and experience. I will also summarize each principal's perspective on the impact of technology. In addition to these details, chapter 4 will provide a description of the data collected regarding the leadership of each principal in practice.

Logan Elementary School

Logan Elementary School (LES) is located in the Piedmont region of North Carolina. According to the US Census Bureau (2018) the county in which it is located has a population of 140,644. In this county, the median income is \$46,978 with 15.3% of its population deemed as living in poverty. To compare, the median income in the state of North Carolina is \$50,320 with 14.7% deemed to be persons in poverty. The racial background of this county is 72.0% white not of Hispanic or Latino origin, 16.8% black, 8.8% Hispanic, and 1.7% two or more races.

LES is a pre-K to grade five Title One elementary school. It operates on a traditional North Carolina school calendar beginning in late August and concluding the school year in June. It is one of 20 elementary schools within this county, seven middle schools and five high schools, one early college and one alternative school. The school district has identified itself as a 1:1 student to device district since the 2014 – 2015 school year. Students in kindergarten through second grade have iPad carts in their classrooms, grades three through eight have access to individual take-home iPad devices, and grades nine through 12 have access to individual take home laptops.

According to the North Carolina School Report Card (2017) for LES, it served 474 students during the 2016 – 2017 school year. Of those students, 51.7% were identified as economically disadvantaged qualifying LES as a community eligible provision school. This designation means that all students receive free breakfast and lunch. Because of this designation, LES no longer collects free and reduced meal applications. This could mean that the reported percentage is lower than the actual number. The racial breakdown of LES is 55% white, 25% Hispanic, 15% black, and 5% other. Approximately, 12% of students qualified for the exceptional children’s program and nine percent were identified as English Language Learners. In 2016 – 2017, LES received a North Carolina school performance grade of a “C” with a 60 score and exceeded expected growth.

Barbara Taylor – Supportive and Direct

Barbara Taylor has served as the principal of LES for three and a half years. She began her career as a teacher in Virginia. After moving to North Carolina, she took an

extended amount of time off of full time teaching while her children were small. During this time off, she worked as an independent contractor for a preschool music company and as interims for preschool teachers and directors in an urban area. Additionally, she tutored elementary school students during this time. After her time off, she taught second grade in an inner city district for three years. She was then accepted to be a principal fellow at a public university. During her second year as a fellow, she completed her internship in the same inner city district where she taught in a middle school. After graduating, she served as an assistant principal first at one elementary school then was split between two schools after major district budget cuts for two and a half years. This led her to her current position as principal at LES.

In The Beginning.

Mrs. Taylor began at LES in January of 2015. During her career she had mostly worked in inner city schools before accepting her current position. She describes LES as a “different type of poverty” with different types of challenges.

I have worked in two different systems in North Carolina that are more city school systems, which were not really urban poverty, but certainly more small community poverty. It felt more like an urban center because a lot of my kiddos there came from apartments and housing projects within a community. Here, the poverty that we experience is more really rural poverty. I have a lot of kids who live down dirt paths, dirt roads in trailers at the end of that. So it’s a different kind of poverty than I have worked with in the past. It makes it interesting and sometimes a different approach is required.

One month after arriving at LES, the district began its 1:1 program implementation by deploying take home iPads to each student in grades three through

five and iPad carts to kindergartens through second grades. Mrs. Taylor describes this move as a “big transition into a new position in a new school and 1:1” all simultaneously.

Current Technological Access.

The school continues to provide access to devices as described above and recently went through their first lease renewal on the devices. Students continue to have access to a take home device throughout the school year in the upper elementary grades. Mrs. Taylor describes that some students do not take them home due to “an issue with being able to pay for the rental fee or parent choice”. Families who cannot pay the rental fee are offered payment options or waivers for extreme circumstances. At times, parents may elect to have their student leave the device at the school for fear that it may be damaged unless it is needed for additional support or homework on a specific day.

In addition to the device, each classroom is equipped with either an interactive smart board or a large screen television with Apple TV depending on the teacher’s preference and use. LES also has a twenty first century tech lab outfitted with robotics, coding, virtual reality headsets, and a 3D printer.

LES utilizes multiple technological programs for instructional purposes. Mrs. Taylor reports that they use Achieve 3000, a differentiated reading program, extensively in third through fifth grade as well as second grade when students become ready. Additionally, teachers use Razkids, Flocabulary, Storia, BrainPOP, Prodigy, Extra Math, among many other programs that the district purchases or teachers request and can prove will positively impact student learning.

Impact of Technology.

Three and a half years later, Mrs. Taylor offered insight into how she believes technological access had impacted students, specifically students of poverty.

I think one thing it allows our kids to do is experience, as they wouldn't experience otherwise. One of the differences, this gets a little to the urban poverty versus rural poverty, I see in kids from those two different scenarios, is my students who came from more city centers, they had more experiences even though they were living in poverty. They lived where they could walk and see things and experience people and experience situations, different places. My kids here for the most part, the kids who are here who are truly living in, in pretty extreme poverty do not live in walking distance of anything. They live, for the most part, much more isolated lives.

Mrs. Taylor believes that this isolation makes it difficult to create connections for students who lack experiences or understanding of what teachers may consider basic content. She believes that technology can provide an answer to this difficulty.

Our 1:1 initiative really just allows kids to have experiences they wouldn't have otherwise, have access to curriculum they wouldn't have otherwise. You know, there are certain things we can do with iPads that we really can't do, can't replicate in the classroom (without technology). There are also certain things we can do in the classroom that we can't replicate with the iPad.

Mrs. Taylor further goes on to provide an example of how this looks in a classroom.

If a student has never stepped foot on a beach, there isn't any background knowledge of what that looks like, sounds like, feels like. So one of the things we wanted, the big reasons we bought the virtual reality headsets, is to give kids the experience of going and seeing other places. I think that is just a way we can leverage those technological resources for kids of poverty.

Content without context is difficult to master. Mrs. Taylor believes that technology allows teachers to create context for students who lack the opportunities to experience the context in their daily lives.

In addition to connections, Mrs. Taylor shares that when speaking with parents or partners about the power of technology in the classroom she stresses the unique opportunities it can provide.

I share some of the different applications that we use and the different things we can use the iPads for that we really cannot replicate any other way besides technology. For example, my kindergarteners can sit in their “read to self” center and they can read their book and they can record themselves and send it to the teacher. The teacher can send it to the parent right then so that the parent gets a glimpse of their child’s life in the kindergarten classroom that they cannot get otherwise.

Mrs. Taylor goes on to describe that technology allows personalization of instruction to occur.

There is no great way for a teacher to personalize instruction for 15 children in the classroom without the use of technology. For example using Achieve, the fact that everybody in the class can be reading the same article and some kids are reading at an 800 Lexile and some kids are reading at a 300 Lexile but everybody is getting the content, everybody gets to have conversations about that content, that is phenomenal.

Logan Elementary School’s Vision.

Mrs. Taylor’s vision for her school is “a great place for kids and a great place for adults”. She wants to create a school culture where people are “happy and want to be there”. She also wants to be a “place where kids are challenged academically and where we take them as far as they can go and as far as we’re able to within a year, or two years,

or however long we might have them”. Teachers also summarized the school’s vision, “every child to reach their learning potential and to grow at their rate”. Mrs. Taylor described what type of instruction matches her vision for LES:

I want student learning to look like what it needs to look like for each student. It depends on kids and it depends on what they need. I would say learning needs to be personalized and individualized for kids. What you see when you come here and visit is a lot of small group instruction and then a lot of kids working independently on playlists, on centers.

Teachers at LES shared that they think “we’re extremely intentional about what our vision is and if what we’re doing doesn’t fit it, then there’s no need to do it”.

Mrs. Taylor’s vision is centered on joy, excitement, and engagement. Her vision speaks to student learning and student’s varied needs. Her vision does not include the tools needed to meet these varied needs but rather emphasizes the process of teaching and learning. She states that in a DLE sometimes educators “think of really flashy things and sometimes it really is just simple, great instruction”. She further goes on to share that technology provides the opportunity for students to working on level appropriate, engaging work while the teacher works with small student groups or while a student waits on feedback from classmates or from the instructor. Mrs. Taylor shares “the level of student ownership, student autonomy, student responsibility is huge in an effective 1:1 environment”. Due to this level of independence, classroom management becomes very important.

Mrs. Taylor stresses that the technology must be used in meaningful ways. Initially when LES implemented the 1:1 initiative, she had to clarify that just because the

device was present did not mean that it should be in use in every classroom all the time. She stated “if I walk into a classroom and it’s lots and lots of iPad use, we are probably going to have a conversation about it, are we out of balance with what we need”. Teachers shared that they believe they have become “very good at blended learning”.

School Culture.

Three and half years ago, LES underwent a cultural revolution that required an innovative and collaborative mindset. Mrs. Taylor believes that her role as “the instructional leader of the school” required the staff to learn to trust her in order to promote growth. She worked to build this trust through classroom presence and feedback. She states that when she first came, teachers “were really watching to see what she was going to think and say”. Teachers wanted to know if she was “going to trust that something good is happening here or is she just going to get upset or the next time we are in PLCs, is she going to say something”. Teachers often asked permission to do even the smallest things at the beginning. Mrs. Taylor finally had to explicitly state:

Please stop asking for permission to do things. You’re the instructional leader in your classroom. You are closest to the instruction and you are closest to the kids. I want you to feel able to do what you want to do. If it doesn’t work, that’s the part of being a reflective practitioner. Either we’re going to completely change it or we’re going to make this tweak or that tweak but I want you to have the autonomy and you should have the autonomy to make those decisions.

Teachers illustrated that this shift had occurred for them by saying,

I feel like she empowers me to do what I feel like is best for my students and if I go to her with an idea, she’ll talk me through it. You don’t ever feel like you have to defend what you’re doing.

Mrs. Taylor wanted to be seen as a partner in the process not a dictator of the process. This culture took time to build and happened through sharing her beliefs as well as by “getting your hands dirty” in the instructional process.

Collaborative planning was already in place when Mrs. Taylor arrived at the school. The structures have changed but the expectation was present. Initially she tried to attend and participate in as many common planning sessions as possible. Mrs. Taylor states that when she did attend, she did “a lot of listening and every once in a while asking questions”. Depending on the needs of the group, she would talk to the instructional coach before or after the session and try to “guide them with some things I needed them to do”. Her goals were to establish herself as a partner not a leader in collaborative planning to promote teacher ownership and continue to build trust.

A move towards innovation required staff at LES to become comfortable taking risks. To build this culture, Mrs. Taylor celebrated when she saw teachers “taking risks and going outside of the box or stepping outside of their comfort level”. These acknowledgements may be offered privately, one on one, or publicly in a staff meeting, in a newsletter, or by asking the teacher to briefly present at a professional development session. Over time, the staff became more comfortable speaking up and taking risks. One example of an instructional risk occurred with fifth grade teachers.

My fifth grade teachers decided to work into guided science instruction. As far as I knew, they were some of the first teachers across the county who really transitioned into very much a blended model of science instruction. They developed their own approach to how they would do science. It is primarily through guided instruction and Discovery Education (DE) boards. We have seen some pretty incredible results as a result with student engagement and student achievement.

Prior to this change LES self identified as having “the lowest science scores in the district” and feeling “very incompetent”. For these teachers to “try to move to something” that “there weren’t a lot of models to replicate” was a risk and they worked “very, very closely together to make it happen”. Mrs. Taylor states that she now enjoys walking into the fifth grade science classroom.

I’ll see that little horseshoe table with the teachers working with small groups of kids. When you walk up, the kids are working on their DE boards that the teachers have constructed. When I ask kids what they are doing, they can tell me and they are excited about it. (They say) Hey watch this, let me show you this, here’s this video, this is a model we made, I mean they’re just excited about it.

As this type of growth occurs, the staff of LES celebrates even the smallest victories together. At the beginning, it was a struggle to identify celebrations but they found small ones. Mrs. Taylor states “we celebrated if we grew in any area, in any capacity, we celebrated it and focused on it”. The growth as collaborative team, celebrations of that growth, and of risk taking behaviors have also changed the culture of how failure is handled.

LES does not define failure as trying something new that does not work as predicted. Mrs. Taylor says she doesn’t often have to address when a classroom is not going well. Teachers themselves bring it up in the next collaborative planning or come straight to her for suggestions. She has become their partner in the journey for instructional improvement. Failure is defined as “somebody not trying”. When this happens, Mrs. Taylor brings it back to what kids need. She said, “when we talk about kids and what kids need to succeed in school and in life, it’s a lot harder to argue”. The

culture has evolved over time so that now teachers feel that making excuses is no longer tolerated and “we’ll call each other on it, you can’t use that as an excuse”.

In addition to collaborative planning, LES has implemented professional learning communities (PLC) as a means to assess instructional progress, review standards, and deeply plan their next instructional steps. Three and half years ago, PLC meetings were in place but were primarily “gripe and complaining” sessions. After seeing this, Mrs. Taylor spent her first summer “with about three or four different principals who were having good things happening at their schools”. During these conversations plus discussions with her leadership team (assistant principal, instructional design coach, technology facilitator, and media specialist), it was repeated that a focus on state standards made the difference as far as instructional growth was concerned.

Standards became the focus for the PLC meetings during the fall. A focus group of teachers agreed with Mrs. Taylor that “there was a lot of resistance” to this shift. At this point Mrs. Taylor described her role as “very, very active”. She spent a great deal of time “backing up, re-explaining things, and having conferences with people”. During this process “there were a lot of tears” in the principal’s office, in collaborative planning and in PLC meetings. Mrs. Taylor was deeply involved in the process of working through this and the breakthrough moments came when teachers discovered standards they did not know were in the curriculum, or standards they were teaching that were not present in the curriculum, or academic vocabulary they were not using with students. After this work was in process, students at LES took the first set of district benchmarks and “proficiency more than doubled” in many content areas. At this point, “that was the

data teachers needed to say what we're doing is making a difference". Mrs. Taylor shared that "I was there for all of those conversations and I wouldn't say much, we would just sort of let it settle". At this point teachers at LES work through this process on their own. When new people are hired, the teachers share this during the interview process. LES believes that collaborative planning and the PLC process are the foundation of their instruction.

Throughout these foundational pieces, Mrs. Taylor continues to build trust and the collaborative, innovative culture of LES. This culture is undergirded by strong opportunities for teacher leadership. Mrs. Taylor stated that PLCs and collaborative planning "demand that teachers start demonstrating some leadership". Teachers shared that teacher leadership "is not encouraged, it's kind of demanded, lovingly demanded. It is expected that all teachers do have a leadership role and she sets it up so that everybody has the opportunity for leadership". Even new teachers are asked to lead in some way through this process. Mrs. Taylor explained that this means some coaching has to occur before these sessions.

Some beginning teachers will jump in right away, but many of them do not. I'll start pushing and coaching them pretty soon. I want to hear that, even to the point where I will have conversations and coach teachers on what they can talk about in the next collaborative planning.

These pre-conversations help to build confidence and push teachers out of their comfort zones to practice their leadership skills. Over time, teachers became more comfortable with sharing and became participating team members that worked collaboratively with

their peers. Mrs. Taylor then praises when she sees a teacher stepping out as a leader similarly to how she celebrates instructional successes.

I, at some point, will have a conversation with the teacher saying, I really appreciate when you, whatever it might be, when the negative talk was going on in collaborative planning and you turned that conversation into a more productive one. That's teacher leadership to me. I think when I started identifying that for teachers, they started identifying it themselves.

Over time, collaborative planning and the PLC process have become data driven and highly collaborative. Teachers have begun to reach across grade levels to question methods and find ways for students to be successful by replicating proven methods. The conversations are "centered around instruction and centered around kids" and Mrs. Taylor believes these would continue whether she "was pushing them or not". Now when she is struggling with a decision she will, "ask the teacher leaders, what would they do or how would they do it" because "again they're closest to the kids and they're closest to the instruction and they've got some good ideas". Mrs. Taylor demonstrates the value she places on teachers' voices by becoming a collaborative partner with them in decision making across the school.

Continual Learner.

Throughout the time with Mrs. Taylor, she described her own journey as a continual journey of reflection and learning. In the early months of her principalship, she spent time with three to four principals who were "showing good results with data" and who had "somewhat similar leadership styles". She wanted to "pick people's brains as to how to make things work". Additionally, she went on many "go and sees" on her own.

For example, she went and observed another school's collaborative planning. She used those ideas and observations to build processes within LES.

Currently, she believes she works in a district where, "it's easy to learn and grow" and she believes, "it's the expectation". In order to meet this expectation, she does "a lot of reading" most recently completing *Bold School* by Weston Kieschnick. Additionally, she is an active participant in the "good professional development" in the district and reflects on what she can immediately implement and what needs to be saved for when her staff is ready. Mrs. Taylor shared that she does "a lot of watching and I do a lot of talking with my colleagues". She continues to "walk the halls" with her peers and "ask them questions".

In addition to reading and the collaborative partnerships with peers, Mrs. Taylor uses the Twitter platform as a source of professional development. Reviewing her Twitter feed shows it primarily as a marketing tool for the school. She indicates that she uses it to research and peruse articles about teaching and learning. Mrs. Taylor's Twitter feed shows that she does not regularly re-tweet articles for the possible professional growth of others.

Communication to Build Relationships.

Mrs. Taylor believes that the most important communication she does is "just face-to-face" and being "visible is a key piece of that". Teachers echoed her belief in face-to-face communication and shared that she "is never too busy" to talk to students. In order to build relationships, she begins and ends every morning and afternoon at bus duty. During this time, she is able to speak with children and parents or significant adults

every day. Additionally, she tries to visit every classroom, every day if possible. During one observation, I saw Mrs. Taylor greet students by name as they returned to school for open house. She asked questions such as “are you ready, I sure am” and “what happened to your teeth”. Additionally, one student asked to take a picture with her to which she replied, “here let’s take one with my camera too”.

She prefers not to contact parents through email or agenda messages but rather will call them, take their phone calls when they call her, or she will do home visits if needed. She shared that she feels it necessary to build relationships with parents, “I try to be respectful of people and I have had a lot of conversations on front porches”.

Another way to promote face-to-face communication with school families or community partners is to host school events that showcase student’s talents and gifts. Mrs. Taylor brought back honor roll assemblies as well as character celebrations. She shared that the “older generation” or grandparents love these types of events and will attend.

Mrs. Taylor wants LES to be known as “a great community school and a friendly school where kids are loved and where good things are happening in the classrooms”. She finds herself telling this story “everywhere”, including with pastors of local churches, in restaurants with patrons, or in stores throughout the area that she may visit. Just as with parents and grandparents, she stated that with community members “one to one communication is just so key and being willing to talk to people and smile with people and always build the school up even on my most frustrating day” is imperative. Teachers

shared that Mrs. Taylor “constantly talks about making sure that when you’re talking about us or our district in the community that you are projecting a positive light”.

Even with a focus on face-to-face communication, LES leverages social media as a marketing tool as well. The school uses Facebook, Twitter, and Instagram to showcase student work and achievements. The assistant principal typically is in charge of these posts. Additionally, LES uses district purchased mass communication tools such as Blackboard ConnectEd and Peachjar to share information.

Due to LES’s location, community partners are limited. Mrs. Taylor and teachers interviewed named the local police department as well as the town governmental officials as strong partners. Local churches also support the school by providing meals for teacher celebrations or locations for off campus events. Additionally, the local middle and high school were cited as partners. Teachers described these partnerships as “fairly organic” and are established by those entities reaching into the school instead of the school reaching out to establish connections.

Professional Development.

Mrs. Taylor felt that the district she works in is unique due to its strategic focus on personalized learning and the 1:1 learning environment. Because of this uniqueness, she stated she did not believe she could “really hire excellent teachers” but instead “for the most part we make them, we create them” and the “professional development piece in a 1:1 environment is essential” to that creation. The expectation of active participation in professional development is shared in the interview process so that candidates understand this piece from day one.

Mrs. Taylor is constantly assessing the needs of the staff through classroom walkthroughs, observations of classrooms, collaborative planning, or PLC meetings, as well as through conversations with the leadership team or individual teachers. If a whole staff need arises, professional development will mirror that need and be offered to the entire staff in a whole group format. An example of this process is found in their investment in Orton Gillingham training. Initially, Mrs. Taylor noticed that kids “lacked the foundational phonics understanding needed and that our staff lacked the phonics instruction needed to teach our kids phonics well”. As a result, the entire staff was trained in Orton Gillingham during the summer. A similar experience occurred with Capturing Kids Hearts training. Mrs. Taylor had been trained by Capturing Kids Hearts in a previous district and believed that “it very much resonated with how I believe schools should run and what I believe about relationships between teachers and students”.

At times, professional development is developed for specific groups and delivered by members of the leadership team. An example of this type of professional development would be a deep dive into new standards or grade level specific programs or strategies. Mrs. Taylor does not use faculty meetings as operational time but rather as a scheduled time to develop the staff. She tries to avoid offering professional development to individuals who have already mastered a concept and “really target it to people who need it and who find value in it”.

During whole or small group professional development, Mrs. Taylor sees her role as to support it. She described herself as being “right in there with my teachers doing the professional development” and “modeling what she expects other people to be doing” as

an active participant. One teacher shared that she is always impressed that, “whenever professional development is going on she takes notes of it and then at the end summarizes it”. At the conclusion of sessions, Mrs. Taylor describes that she offers, “the visionary piece behind why we’re doing what we’re doing and I try to help people make the connections between it and our strategic plan”.

The final type of professional development is an individualized coaching plan. This type of plan is based upon the principal’s observations as well as the leadership team’s input. An individual coaching plan is an expectation for every new staff member but an existing staff member could also be required to work through a plan for a specific need. For new teachers, coaching cycles are started immediately and are collaboratively created with support staff. During these cycles, staff members compose a goal and then work with a support staff member, such as the instructional design coach, to select strategies to assist in reaching this goal. Examples of strategies could be, “having people in your classroom model things to do, co-teaching, co-planning, observations, or filming yourself”. The idea behind the plan is that strategies will be modeled, reflected upon, co-planned, and then the teacher will take over in a gradual release model. Mrs. Taylor stated that she shares with staff who may be resistant to coaching the expectation of participation, “this is going to grow you as a teacher and there is not any of us, myself included, who doesn’t need to be coached to get better”.

Strategic Planner.

Mrs. Taylor thinks deeply about the resources needed to support the vision of teaching and learning desired for LES. These resources include but are not limited to

time and people. She demonstrates an intentionality and prioritization of resources based upon varied methods of assessing the needs of the school utilizing the school improvement process.

We look at data all the time and so the thing I love about using the data as we do is we really do not have to spend a lot of time digging through it when we get to our school improvement plan because we already have a very strong idea of where we stand and where our gaps are. What are we making good progress in, what are we not, and then what are we going to do about it?

This data comes in varied forms including assessment data but also as observations or conversations.

Time.

When Mrs. Taylor started at LES, the schedule included four back-to-back enhancement classes one day per week. This structure provided three consecutive hours of planning for teachers one day per week. The expectation was that teachers would meet the entire time to collaboratively plan but “it was not happening” according to Mrs. Taylor’s observations. More importantly she observed, “the block was really too long for our kids especially for the kindergartners and first graders” and “for our kids who struggle with behavior issues”. Finally, she noticed that the “other half of the day for teachers was not particularly effective instruction”.

Over that first summer, Mrs. Taylor met with staff that did not feel that 30 to 45 minutes was enough planning time per day. Collaboratively the staff decided to do two enhancements back-to-back that provided 90 minutes of planning twice per week. This

structure remains in place currently with the expectation of collaborative planning occurring during this window of time.

Each summer when Mrs. Taylor creates the master schedule, she is “mindful of how it impacts kiddos and how it impacts teachers” and tries “very hard to structure the master schedule with instruction in mind and not the ease of the adults”. The process starts by placing the enhancement structure described above on a schedule prioritizing it as the number one focus. After this, Mrs. Taylor schedules lunch and recess and then sends it to the school improvement team to review for issues. Finally, classroom teachers and support teachers (EC, AIG, and ESL) collaboratively schedule their content blocks framed by school level expectations of literacy and math constraints.

People.

In order to grow the teachers that are needed to meet the expectations of LES, Mrs. Taylor believes that support personnel are necessary. The district provides these positions but their roles are defined at the school level. These roles are dictated by the needs of the students. When describing the instructional norm in a classroom, Mrs. Taylor described what you would typically see:

It is sort of controlled chaos is what I would say of teachers working in small groups and kids working independently on what they need to work on. Then other adults, other staff members, whether that be assistants, or title one tutors, or coaches in working with small groups of kids or individual kids depending on their needs.

She further describes that coaches are also responsible for “modeling what good instruction looks like, good guided instruction”.

A specific example of Mrs. Taylor's strategic, purposeful planning is the repurposing of the media specialist position into an instructional support role plus student support role. She described that this role is very different from the role of 10 years ago.

It is not about checking out books and managing the library or the media center although they might do that some, but we also had to figure out different ways to make that happen so that a certified staff member is not the primary person responsible for that. Our media specialist's and our technology facilitator's offices are right next to each other, which offers a lot of collaboration for them and our media specialist was probably one of our strongest classroom teachers in integrating technology before she went to the media center. She's able to pull in that sitting down with kids reading a book, doing an author study and then adding in the makerspace piece or the tech piece or at the upper grades, the research piece.

The hiring of this position requires an intentional focus on the needed diverse instructional skill set. In addition to the description above, the media specialist is a part of the enhancement team at LES, rotated with guidance, in order to provide the needed fourth enhancement for the collaborative planning structure described previously.

Mrs. Taylor believes strongly that support staff is necessary but also shares with them that they must convince the teachers of this as well.

One of the things that I tell all of our support staff, my assistant principal, reading coach, tech facilitator, media specialist, and guidance counselor, is we're here to add value to the classroom and if we don't add value to the classroom, we don't have jobs. The only positions required in North Carolina are principal and classroom teachers. Everybody else is extra. The classroom teachers are the workhorses of the school. Those of us who don't have those kinds of schedules and don't have that kind of responsibilities need to make sure that we're supporting those who do.

Mrs. Taylor takes responsibility for defining the roles, sharing her expectations, and then allowing people the autonomy to establish their voice and instructional value.

Leadership Style.

Teachers interviewed described Mrs. Taylor as “very direct” sharing, “she holds everybody to a high expectation, she expects you to be here doing your job and doing what’s necessary with the students”. Additionally, she is described as supportive as evidenced by, “if you tell her something you would like to do, something you would like to try, she’s going to make it possible for you to have that opportunity”. Finally, Mrs. Taylor is described as “family oriented” as she has established a culture where everyone, “feels like they belong”.

Stone Ridge Elementary School

SRES is located in the Piedmont region of North Carolina. According to the US Census Bureau (2018) the county in which it is located has a population of 231,366. In this county the median income is \$70,858 with 9.1% of its population deemed as living in poverty. The racial background of this county is 72.1% white not of Hispanic or Latino origin, 12.3% black, 11.3% Hispanic, 3.1% Asian, and 2.0% two or more races.

SRES is a pre-K to grade five Title One elementary school. They operate on a traditional North Carolina school calendar beginning in late August and concluding the school year in June. It is one of 30 elementary schools within this county, nine middle schools, and eleven high schools, including one early college, one academy school, and three additional special schools. SRES has been deemed a 1:1 environment for five years. Mrs. Weaver, principal at SRES, stated that the district started its digital

implementation at the high school and middle school levels first before moving to elementary schools about five years ago.

According to the North Carolina School Report Card (2017) for SRES, it served 581 students during the 2016 – 2017 school year. Of those students, 93.6% were identified as economically disadvantaged. The racial breakdown of SRES was 65% Hispanic, 30% black, 2% white, and 3% other. Approximately six percent of students qualified for the exceptional children’s program. However, Mrs. Weaver noted “when you have a higher Hispanic population it’s harder to qualify them in EC” and she also shared, “I don’t know if the help you get as an EC student is any better than what we’re already giving you so we really try not to label a ton of kids if we can”. Approximately 55% of students are deemed English Language Learners. In 2016 – 2017, SRES received a school performance grade of a “B” with a 70 score and met expected growth.

Karen Weaver – Authoritative and Outstanding

Mrs. Weaver began her educational career as a high school Biology teacher. She taught and coached basketball and softball for nine years. She then served as an assistant principal for three years before her first principal role at an elementary school in South Carolina. After two years there, Mrs. Weaver returned to her original district as a principal at a Title I elementary school where she served for 13 years. In 2010, she was tapped to take over SRES within the same district. At that time, SRES was in the bottom five percent of schools in North Carolina and was marked as a school for state supported transformation. As a part of this transformation, the existing principal had to be replaced

as well as 50% of the existing staff. Mrs. Weaver has now served for eight years at SRES and has led them out of the transformational status.

Current Technological Access.

SRES provides Chromebooks to every third, fourth and fifth grader. Mrs. Weaver states “they can take them home or leave them here”. Additionally, the district recently provided 150 refurbished Chromebooks for “little people land”. At SRES, the site based leadership team will decide how those are assigned but Mrs. Weaver shared, “doesn’t see much going into Kindergartners hands”. The school also has 10 to 12 iPads for use as well as a computer lab that classes can visit weekly.

Impact of Technology.

Mrs. Weaver feels that the students she serves come “so equipped these days” knowing how to use technology. Due to the digital natives that enter schools now, she believes,

School systems have to recognize we’re always going to be behind the times as it relates to their use and ability of the smartphone and their ability to access the information that they want quicker than we can even say it. Even with poverty, children have access to smartphones, even if its pay by the minute, or they have cheap tablets.

The limiting factor at home for her students is internet accessibility.

Mrs. Weaver was very direct about her thoughts about technology’s impact on the classroom.

I don’t think digital literacy impacts the kids as much as a quality teacher in the classroom. I think that we, as a nation, put a lot of emphasis on digital literacy

and have forgotten that we can take those dollars and put a quality educator in the building and get greater impact if you look at the research.

However when asked about how the 1:1 program at her school impacts students of poverty, she shared,

We use the computer in a way that takes that excitement but gets to the instructional target we are after. I think the 1:1 program and having the ability, because kids aren't going to see Italy or even see Charlotte, to give them access to places that the kids who are middle or upper class have, I do think that's extremely beneficial.

Mrs. Weaver believes that technology allows her students that almost exclusively live in poverty to be given opportunities to see places through virtual field trips. These opportunities give the students context to the content they are learning in the classroom.

Although, Mrs. Weaver can articulate the value of a device in varied contexts, she is quick to state, "we have to balance it with giving them time to have conversations, time to work together, problem solving, and all of those things". She goes on to share, "some schools will say you have to use the computer everyday. That has never been a statement here".

Teachers at SRES said, "I would say because we are so authentically driven with books that there is a piece of the digital access, but its not the main piece, its not even a big piece". When asked to describe how the digital tool was used in the classrooms teachers discussed, "eBooks through a partnership with the county library" as well as Tumblebooks, a program of curated e-books, to which the district subscribes for the

schools. Additionally, the tool is used for research during projects in the classrooms.

One teacher described,

We use it on a case-by-case basis for students. If there is a child who's reading two or three grade levels behind, I will put them on the computer so the computer will read them the book. The text is then accessible to them so that they can still do the grade level thinking. I've been able to kind of compensate for their inability to read the text themselves.

Teachers do use other online tools such as BrainPOP or Kahoot but clearly expressed that they do not heavily invest in programs. One teacher stated about programs, "It doesn't align with our core beliefs of teachers change kids, programs don't change kids, computers don't change kids, teachers and books change kids".

Stone Ridge Elementary School's Vision.

Before Mrs. Weaver shared her vision for SRES, she vehemently discussed her thoughts on defining a student's potential. She said,

A lot of people say that every child achieves their potential, sometimes that's a cop out, because if I judged your potential as less because you come from the home of a single parent, then I have established your potential as lower and I don't have the right to judge you. I don't have the right to enter your story and begin telling you where your potential is.

Instead she defines her vision for SRES as, "every child will achieve grade level status or exceed grade level status". She goes on to say, "for 99.9 percent of children, that's possible if we do our job". Teachers echoed this vision by saying, "make every child successful, everyone will exceed, meet or exceed grade level, all the kids, no matter how low they come, when they come".

Mrs. Weaver described the type of classroom instruction you would see that mirrors this vision for SRES by saying,

It depends on what we are after (at that time), in a math block, it is a problem-solving block. I'd like to see them begin in a very quiet, thoughtful, asking how do I solve this? Then all of sudden an eruption of wanting to get together in a conversation and then they trickle away from each other and begin to ponder it themselves. They see themselves as very capable, but they also value the input of others, but they're also willing to debate.

She further explained,

There is almost an organized chaos in the room because there's times when we're in groups, there's times when we may run over to the computer to see what does this mean, what is this, what is another resource? But there are also times for quiet and there are times for kids to be still and think.

Mrs. Weaver values productive struggle in the classroom as well. She pushes rigor "in everything we do" and wants lessons to illustrate those that would be given to the "highest achieving kid in the universe" with "our kids too".

This vision for SRES begins with the belief system and that belief system is shared first in the interview process. Mrs. Weaver said, "we have to believe that our kids can be successful, and if we don't, well why are you in this building". She acknowledged that if a staff member is "white middle class" it sometimes is hard to buy-in to the belief system. If she finds that a staff member is struggling with it, she pairs them with a staff member who had the same struggles previously and "turned the corner". Her hope is that through "common experiences" they can discuss their feelings, share their thoughts, and

then the experienced staff member can say, “now let me show you what my kids are doing now”.

Teachers also described the belief system of SRES. They stressed that the diversity of the school is “something we thrive on, its part of who we all are”. They know and understand that they “are responsible for all kids” regardless of grade level or ability level. One teacher stated that the core beliefs are set by administration. A teacher followed that up with, “if you don’t buy-in to this school, you won’t stay, whether it’s your decision or her (Principal) decision”.

School Culture.

A teacher at SRES shared, “its as strong as a school culture as I’ve ever worked with as a whole”. The culture summarized is one of high expectations, collaboration, and a “no excuses” mindset to meet the needs of every child at SRES. This culture begins with the principal in the building. She approaches each day as “the instructional leader” and she believes that “principals abdicate that responsibility all the time”. The key to leading in this high expectation environment begins with trust. Mrs. Weaver shared,

I don’t know if they like everything that I put out there but because we have a relationship, because they know I’m not out to get them, because the way we evaluate and observe is a very respectful process, a very professional process, I think they trust me. That doesn’t mean they always agree with me.

The teachers believe that the principal “puts it on us to take ownership for kids growth”. The expectations surrounding this ownership are clear. Teachers state that during instruction you “will not see someone without a clipboard in their hand and if you do,

they will be spoken to because its just an expectation” that you collect data constantly and bring it to collaborative discussions.

At times the expectations seem to be communicated as rigid, however the principal and the teachers agree that they very much operate as a team with a common goal of meeting grade level expectations for all students. To operate as a team, a culture of collaboration is necessary. Teachers expressed, “it’s just the idea that we’re all in this together” but were clear that “no one is going to really clap for your birthday, we don’t care, it’s not about you, it’s about the kids”.

This child-centered collaborative approach is in their “crew” meetings. These meetings are SRES’s version of professional learning communities. The name is derived from the concept that the staff operates similarly to a rowing team, moving in the same direction with dependent roles in the process. Mrs. Weaver named these meetings and stated, “the reality is we are much stronger group when we’re connected”. Crew is a time for teachers and support staff to collaboratively address when a child struggles. Mrs. Weaver shared, “we don’t let you struggle long and that’s what we do in crew, we’re going to intervene”.

I observed in the crew meetings for varied grade levels. One observation was conducted during a fourth grade crew meeting focused on math. The principal posed the question, “what is the current major area of struggle”. One teacher spoke up and shared based upon her data an issue with “place value and the need for repeated addition”. The other teachers present agreed with this gap for their fourth grade students. Mrs. Weaver told the assistant principal to go and ask Ms. Stone, a third grade teacher, to join the

meeting. While the assistant principal covered Ms. Stone's class, she joined the meeting. Mrs. Weaver stated, "the reason I wanted you here is not to point fingers but to build bridges, why are the fourth graders having these issues with place value and repeated addition". Ms. Stone responded, "we didn't do extended facts" and the fourth grade teachers said, "that explains it". Mrs. Weaver then asked the question of the team, "knowing this what will you do differently". This collaborative exchange focused on removing gaps for students and illustrated the belief that every teacher is responsible for the growth of all children. Teachers appeared to be comfortable with the dialogue and did not seem threatened by the questions posed.

In addition to formal collaboration, informal collaboration is rampant on the campus of SRES. Mrs. Weaver described how teachers work together to support individual student needs, "the first line of defense if a teacher is struggling with a student is to say to a friend, can you take him this afternoon". Teachers will work collaboratively to develop a schedule for a student with significant behavioral issues and cannot handle being in one classroom all day to "rotate them so that they have three teachers". Mrs. Weaver believes the teachers should have the autonomy to make these decisions on their own. However, teachers also know that she will be there if needed. Mrs. Weaver described,

I would struggle with that same student if I had to stay all day with him. I tell teachers to pick up the phone and call me. I'll walk him around the building, I'll bring him back to you and then I'll come back in an hour and walk him around again. Teachers know that's okay because they're trying to keep him in the room, so there's a we're in this together mindset.

Mrs. Weaver shared that teachers at SRES, “take instructional risks every day” to meet the needs of each student. Excuses are not allowed and if they are offered “we call each other on the carpet for that”. Pushing teachers to embrace a risk taking mindset requires Mrs. Weaver to “show that you’re vulnerable”. She shared, “I think you as a principal have to go up in front of all of them and say, remember, now I’m not the expert teacher in the building just because I happen to be an administrator”. In order to support this culture she constantly says, “I learned this from this teacher, get up here Ms. B and teach this, and so I am vulnerable with them and transparent. (Because of this), It’s easier for them to admit where they are as a learner”. She describes a specific observation,

I was in an observation one time with a teacher and she’s teaching a small group and she looked at me and she said, I don’t know what to do next. And I said, well don’t ask me. With our staff here, we’re just vulnerable and we’re just honest.

Mrs. Weaver celebrates staff first one on one because she believes that praise has to be “relationship oriented” and so she will tell a teacher going down the hall, “you’re rocking it today”. Additionally, she will recognize teachers during staff meetings or in crew meetings. Teachers expressed that “she makes you feel appreciated for even the small things” but “it’s not false praise”. Teachers feel comfortable taking risks because they “know we will be supported if we fail”. Aligned with the “no excuses” mindset teachers said, “try it and if you fail we’re here to catch you, if it doesn’t work, come back and let us know, but just try it”. If an idea fails, Mrs. Weaver will say, “come up and share what went wrong today and then we celebrate how you got out of that”.

Throughout the collaborative process, Mrs. Weaver has emerged as a partner in the instructional process and said, “I don’t know enough to make all the decisions”. Because of her belief in the power of a team, teacher leadership and transparent communication are key pieces of SRES’s culture. Staff selects representation on a site based leadership team that is used as a problem solving team. Mrs. Weaver shared an example of their leadership,

One of the members of the team came to me and said we don’t think our schedule will work. I asked what do you think will work better? They shared what they thought would work better and then I said, well do it. I’m much more willing to say to them go and try it because I know they will want to prove it right. They can keep doing it because I’ll say to them, if it doesn’t benefit the kids, you I know have to put the brakes on it. If it benefits the kids, you can do anything you want.

Beyond the site-based team, teachers lead by coaching their peers and you will “see different people rise to the occasion and take different responsibilities”. Mrs. Weaver believes that at SRES, the “whole group leads at different times”.

Continual Learner.

A focus on all students and a “no excuses” culture leads the school to approach their work as learners. Each student presents a unique opportunity to approach teaching and learning with new ideas or strategies. Mrs. Weaver stated, “our mantra here is that we’re learners first”. As evidence of this mindset, she references the three books provided for summer reading.

During the upcoming school year, SRES was to experience a shift in their demographics due to redistricting. This shift would decrease their Hispanic population

while increasing their black population. To proactively begin conversations about this shift, Mrs. Weaver selected a book entitled *Ghost* by Jason Reynolds. This book was selected, “because his emotions are exactly what our boys and girls are going to feel of all races, we wanted them to have a male character written by an African American male author, that’s intentional”. The other two books were focused on curricular strategies in reading and math. When asked what the staff would do with these readings upon return, Mrs. Weaver shared, “we did some work already (over the summer) and we began with *Ghost*, we’ll come back to all three texts at different points in the professional development over the year”.

After discussing the three books, Mrs. Weaver also pointed out that during her continual reading over the summer, she found four articles she also wanted the staff to read. She sent her staff a letter and included those articles about two weeks before school started. She described,

They’re all going to just croak when they see four articles cause they’ve already read three books. My whole thing to them is, wow, you’re going to love this. They’ll just roll their eyes and give me great grief when they come back. But it’s the mindset of learners first and nobody here is perfect and nobody has to do it.

The teachers described these readings, “every summer we have professional reading homework, like a college class” and it is used like “a prep class for the year”.

These readings come from Mrs. Weaver’s research. She believes,

Principals are the worst learners in the building because we think once we get to the chair, we know everything. Once you have doctor in front of your name, you know everything. The reality is I don’t think we know enough and I really don’t

think we know enough about curriculum. I think we need to get our hands dirty with curriculum. We really need to read and so I read.

When asked to give some examples of what she has read recently that impacted her practice, Mrs. Weaver rattled off nine varied books, blogs or articles that she was currently using in her practice. She approached her work as the instructional leader in the building, “I’ve got to go out and read to figure this out”.

Mrs. Weaver described her use of Twitter as a means for professional growth; “I get on a lot, at nighttime a lot”. She locates people on Twitter that she respects and then uses that person’s tweets to go to varied blogs, videos and articles. She describes herself as a “stalker” on Twitter but she never follows people because, “I’m not identifying that on Twitter”.

Mrs. Weaver’s avid use of Twitter has led to some deep connections with “educational gurus”. She stated,

I’ll read something on Twitter and go I’d like that person to come and learn from them. So we’ll bring in the authors that I think are really on the cutting edge, that we’ve read and who will challenge us to think differently. If you think the same thing I think, I probably won’t bring you in the building, but if you think something different and you can challenge our belief system, then I want you to come in to see how we can change to benefit these kids.

The teachers at SRES also used the word “stalk” to describe their interactions on Twitter. One teacher shared, “We stalk some gurus on social media and then they come to our school and we ask them, who’s up and coming, who is the next one, who should we be reading”. The teachers expressed their pride in interacting with Ron Clark, Linda Hoyt, and Gravity Goldberg, calling themselves “super fans”.

One teacher also described that the expectation of continual learning was not just about day-to-day practice but also about self-improvement.

I was a teacher assistant with her (Mrs. Weaver) at her previous school. She actually got me and one of the curriculum people to go back to college to get our four-year degrees. I became a teacher with them there at the old school and they totally supported the whole process. There's another assistant right now going to college to get their degree and they're very supportive. They always want us to grow and learn.

Learning is a key practice at SRES. Mrs. Weaver models this practice and teachers mirror this mindset.

School Partners.

Mrs. Weaver's Twitter use is limited to the learning process and does not include using it as a communication tool. Teachers shared, "she never tweets" and described her use as "strictly professional". This type of use made reviewing her social media feeds unproductive. SRES does have a Twitter site as well as Facebook but Mrs. Weaver shared, "the AP is in charge of that because I would probably do something stupid and I don't know how to do it". The school's social media presence is used to showcase student work, celebrate professional development events, or market school events.

Mrs. Weaver helps to create school newsletters but shared that instead of using other means to communicate, "I'd much rather have a conversation with you and talk to you". Teachers described her communication style, "first name basis, handshake, looks them in the eye, open communication, call her, come visit her, she will meet them at the door". Mrs. Weaver said that she does believe that parents are valuable partners in the educational process but that it can be challenging with the students she serves.

I do a lot of home visits. I go out and see them particularly if I can't get them on the phone, which nine out of 10 times, I am not going to get them on the phone. I don't have high expectations of parents with communication and don't expect our parents to be good in terms of communication. I think poverty is so busy.

In order to get parents into the building, "we put kids on stage". Mrs. Weaver shared that parents will not come to visit classrooms so she has to "sneak it in and they'll be OK".

SRES does not have a parent teacher organization.

Teachers believe that parents want to be partners but provided examples of the busyness the principal mentioned. One teacher described a student who was struggling with reading and was showing signs of dyslexia. Over the course of the year, the teacher struggled to identify what was causing the student's struggle. She shared,

His mom came in multiple times but it's hard to get his mom to come in because she works two jobs. One of the jobs is at a local plant down the street so she could only come in at about 6:45 in the morning in her work uniform. But she is here and nine out of 10 times, if you really want the parent to come, they will come if they can. They may take taxis but they will be here.

The teachers illustrated the commitment level it takes on the part of SRES and the parents in order to overcome the obstacles that prevent authentic partnerships.

The superintendent of SRES's district is "big on marketing your school". In order to meet this expectation, SRES has done a celebration to share "how great the school is" and share with the public the successes of the school. Mass communication tools, like Blackboard ConnectEd, are also used to share information.

Marketing is primarily targeted to combat competition from charter schools in the area. Mrs. Weaver described, "Last year we showed our success compared to any charter

school in the county and we dogged them and none of them had the free and reduced lunch poverty that we did”. She cautioned though that this type of marketing has to be “balanced” because “as soon as charter schools hear you are doing that, they’ll market something that you can’t be if you don’t have access to it”. However, Mrs. Weaver does not necessarily believe that this type of marketing is as important to the families that she serves. She shared, “I don’t know if our parents care about that as much as they care that their child is not picked on”.

Mrs. Weaver describes SRES’s story, “the best school because it is child centered”. She emphasizes the foundation set by the administrators and teachers that came before them as a school “where students were loved”. SRES’s story involves “wonderful kids who in other places are seen as the deficit to us but they’re amazing”. Mrs. Weaver shared they never use test scores to tell their story, in spite of their successes but instead will, “tell you about how our students have changed as a result of the instruction in this building”. Many visitors annually experience and share SRES’s story. Mrs. Weaver shares their story on varied panels about school transformation. Additionally, Education NC shared SRES’s story.

Mrs. Weaver described other partners of SRES that included church partners, other schools, and a local university. The local university’s soccer team visits the school to establish connections and possible mentors for students. Mrs. Weaver shared that partners do not typically reach out to them instead, “if we see we need something, then we will reach out” to our partners.

Professional Development.

SRES's school improvement plan states, "SRES participates in 70 hours of professional development that is focused on identifying student strengths and next steps. This professional development helps us to develop a targeted plan for each child that is connected throughout the instructional day". Deeper into the plan one of the strategies stated, "develop professional development opportunities for our staff that focus on research based instructional strategies that promote rigor, encourage creativity, and emphasize collaboration". The point person for this strategy is Mrs. Weaver. The plan further states the "teachers believe in the professional development" and that SRES feels that "this is best done at the school level".

Mrs. Weaver clearly articulated that SRES would determine what the 70 hours of professional development would look like for them. She shared, "We are not going to leave that to the system because the system will go on the system's priorities and I have to be focused on what the children here need".

Professional development takes on varied forms at SRES. Mrs. Weaver expressed, "I am the instructional leader in the building so I'm going to be crafting the professional development in the building, I'm going to use all kinds of people". As previously described, the school focuses on bringing in experts in the field to share their strategies as well as to provide feedback on the school's approach. Much of the professional development however involves on-staff teachers and curricular specialists. Mrs. Weaver explained, "I'm not an expert so I am going to go to the teacher who I know does a great problem solving block and I'm going to bring her up together, watch her,

video her, and then work with her to define what she is doing”. This process is used so that the expertise of on-staff teachers can be shared with their peers.

Tiered support happens within the crew meetings previously described. This differentiated support is offered through intentional pairings of teachers who present together in the crew setting. The pairings could be based upon experience levels, ability levels or simply because Mrs. Weaver wants two teachers to deepen their professional relationship. Mrs. Weaver recognizes a need for increased differentiation in professional development based partly on the North Carolina Teacher Working Conditions Survey administered during the spring of 2018. The plan is to address that need by separating grade levels for specific topics such as, “running records with K-2 teachers and noticing skills with 3-5 teachers”.

Teachers at SRES believed that weekly professional development at their school was meant to “help them grow” and involved “real kids, real work examples” that they deemed authentic. These experiences model what Mrs. Weaver wants the classroom to look like as well. One teacher described,

When we’re in a staff meeting, for example yesterday, it was the whole group mini lesson, but then she breaks off into groups and its with your grade level, it’s across the school, and you meet and discuss what you’re going to do in that moment. When you leave professional development every week you have an action plan for something to do differently the next day.

Because there is an immediate action plan, teachers find the experience to be beneficial and productive.

In addition to formal professional development sessions and crew meeting support, teachers describe the observation process as well as the planning process as promoting professional growth. Teachers expressed, “nine out of 10 times it’s the principal that observes” them. The feedback given, “no matter if you have the best lesson you’ve ever taught, you will get multiple things to help you and your kids grow and it’s not an I got you, it’s let’s try this, here’s another way”. Mrs. Weaver also does not wait until an observation to provide feedback. She is in the classrooms every day and “may ask you to go see someone else teach or may ask someone to come watch me”. During planning with the curricular staff that writes grade level whole group plans, teachers feel comfortable sharing their struggles and expect the staff to then visit their classrooms and help “figure out what to do next”.

Strategic Planner.

Mrs. Weaver believes that school improvement is a daily occurrence and not reserved for a team or a plan. She shared, “the school improvement plan in some regards is a useless document because we plan for school improvement daily”. She and the staff are constantly assessing needs and then working to find ways to address those needs with an urgency and intentionality of creating conditions for student success. Mrs. Weaver shared a specific example of how this occurs,

Right now we are struggling in kindergarten with bigger classes, classes of 20. They’ve never been to school and they don’t speak English and we have all kinds of obstacles down there. Once I saw the teachers wrestling with this, I said to our assistant principal, I think we have got to figure something out. We sat down with the kindergarten team and asked what do we need to fix, we have to get them on grade level.

After brainstorming with the team they realized, “we probably need to add a kindergarten class even though the system is not going to give us a position”. Mrs. Weaver believed, “I had to think about where does that resource come from so that I can do for you what you need”. After examination of the existing resources and budget she decided, “I can do a 29.5 hour kindergarten teacher” with Title I funds.

During a crew observation with the kindergarten team and the retired teacher hired to fill this need, I was able to observe the process for creating this class. Teachers and Mrs. Weaver discussed who could go into the class based upon their ability to transition, varied ability levels or behaviors. As this discussion occurred, the principal charted students who were selected based upon gender and race and asked the group if the class list mirrored the breakdown of the other classes. Once the decisions were made, the principal pledged to “craft a letter to parents” to explain the new arrangement. Additionally, the team planned the timeline for the change to occur.

Money.

One of the resources principals are charged with managing is money. SRES is a Title I school which provides an avenue of funding to support the needs of the school. In SRES’s district, each Title I school receives an allotment that they can choose to use for professional development, instructional supplies, or people. Mrs. Weaver stated, “we only buy people, we take every cent to buy people”. This specific focus allows SRES to have six literacy teachers or curricular experts and means teachers are rarely teaching literacy alone. Most classrooms will have at least two adults in the room during literacy blocks.

As stated previously, professional development is a large component of SRES. The school district received a federal grant that created another revenue stream for Title I schools. Mrs. Weaver elected to use this “large amount of money” to fund professional development. Using this grant funding, teachers were allowed to work for five days during the summer with a stipend. Principals were allowed to determine what this work would look like in their buildings. Mrs. Weaver chose to have teachers “come in to the building and work together to address the new math standards and begin to re-evaluate their instructional plans” based upon the standards and the students they will have in the fall.

Teachers shared that in addition to funding staff and professional development, money is well spent to provide instructional resources that support the instructional vision.

Students have books in their hands from the minute they walk into the building on the first day of school and every morning they start to eat breakfast and they read. We’re capable of that because we have such strong resources that our principal has provided for us. We have such rich texts and books that the kids want to read and if we say we want a book that kids are interested in, they will do what they can to try and find money to buy the book. We are privileged in the sense that she uses our money to buy literacy resources and to buy literacy teachers.

The budgetary process at SRES is strategically and intentionally focused on instructional resources to meet the needs of all students.

Master Schedule.

Time is another resource that Mrs. Weaver leverages to impact teaching and learning. Time is intentionally carved out in the master schedule for planning. Teachers

have 40 minutes per day; they work together three days per week and one Friday per month they meet in Crew. The administration sets the schedule to ensure that literacy plans on Tuesdays, Thursdays and math plans on Wednesdays. This allows the appropriate resource people to be present to provide support. The master schedule is created to match student enhancement schedules with planning needs.

Additionally, students are individually scheduled by Mrs. Weaver in order to give them the best possible fit to promote their success. Throughout an open house observation, Mrs. Weaver said to students, “You must be so lucky to get that teacher”, or “I must really like you to give you that teacher, you must be the best kid in the universe”. At one point in the observation, Mrs. Weaver ran out of the gym where students were receiving their schedules. When she returned she shared, “I forgot to move a student with big behaviors out of a second year teacher’s class, I had to do that quickly”.

People.

In addition to managing the money to hire people and creating time for them to provide support, the people themselves serve as an intentional instructional resource used to impact student learning. Mrs. Weaver works to create a schedule in which curricular support can both be present in all classrooms and provide tiered support for teachers who need extra help. Teachers described that when teachers have higher needs,

That’s where the support staff comes in, everyone gets support staff but those newer teachers or if someone needs it more, that’s where they are going to go. If you say you need help that help is coming from somewhere. If you have a teacher that flounders a little, that room will be flooded with support. Those kids are not affected.

During a crew observation with second grade reading teachers, I observed teachers expressing a high level of need. Mrs. Weaver immediately began to examine the support personnel schedule and openly discussed how those people could be moved around to support those classrooms with the highest needs.

Leadership Style.

Teachers interviewed described Mrs. Weaver as “authoritative” with “high standards” and “very professional”. One teacher shared, “she puts that boundary up in a good way, in a respectful way”. Additionally, she is described as “very vocal especially at county meetings”. To clarify one teacher stated, “vocal about what’s good for kids, what’s research based, and what’s not, the county uses a lot of programs that never come through our doors, if it’s not kid centered and research based”. Mrs. Weaver explained that she is able to filter some of the district’s initiatives because SRES has gotten results. She shared, “if we were a D or F, it would be a totally different ballgame, I would have to play by a totally different set of rules”. One teacher also described Mrs. Weaver as “approachable” but “maybe not in your first few years”. Overall to summarize Mrs. Weaver’s leadership one teacher said, “it is just outstanding, I mean I chose to come with her (to SRES) and there was a large group who did”.

Connections to Come

Chapter four created a descriptive picture of the data collected from the research with both Barbara Taylor and Karen Weaver. The time spent with each principal of a DLE painted a clear picture of her priorities and practices. In the next chapter, I will discuss the themes that emerged from the analysis of the data collected throughout the

study. In addition, these themes will be examined through the lens of the conceptual framework. This analysis will provide evidence of a connection to or evolution of this framework. After synthesizing the research, I will attempt to describe the principal of a DLE. Chapter five will conclude with a discussion of the implications of the study as well as the recommendations for future research.

CHAPTER V

DATA ANALYSIS AND INTERPRETATIONS

This research study was designed to examine principals of DLEs in action to develop a descriptive summary of their practices. As increasing numbers of schools purchase technology in hopes of transforming their classrooms into student-centered learning environments, it is important to examine current DLEs and learn from their successes. Richardson, Flora, and Bathon, (2013) described that the principal was “at the core of the shift” to a transformed learning environment (p. 145).

Using literature about leadership in a digital context, I developed a conceptual framework to shape the study. The framework was used to compose questions for interviews with Mrs. Barbara Taylor, principal of Logan Elementary School, and Mrs. Karen Weaver, principal of Stone Ridge Elementary School. Both of these principals were nominated for study based upon the traits depicted in the conceptual framework. In addition to interviewing the principals, I conducted focus groups with teachers at each school, examined school improvement plans and social media feeds, as well as conducted observations of the principals of each school.

The research study was designed to examine the following research question: What do the skills, qualities and behaviors of principals look like in practice in digital learning environments? At the conclusion of the research process, the data collected was examined and analyzed for connections to the conceptual framework as well as for

emerging themes. In this chapter, I will describe the emerging themes and connect them with the conceptual framework in order to create a descriptive illustration to address the research question. Each theme will be compared to the traits listed to see if they supported the framework, caused an addition to the framework, or warranted a re-classification of a specific trait. These comparisons were used to create an expanded framework depicted in Figure 3. To conclude this chapter, I will discuss the implications, recommendations for future research, and the conclusions of the study.

Emerging Themes

The research study began by using a conceptual framework. This framework, shown below, illustrated six traits of a principal of a DLE gleaned from my literature review.

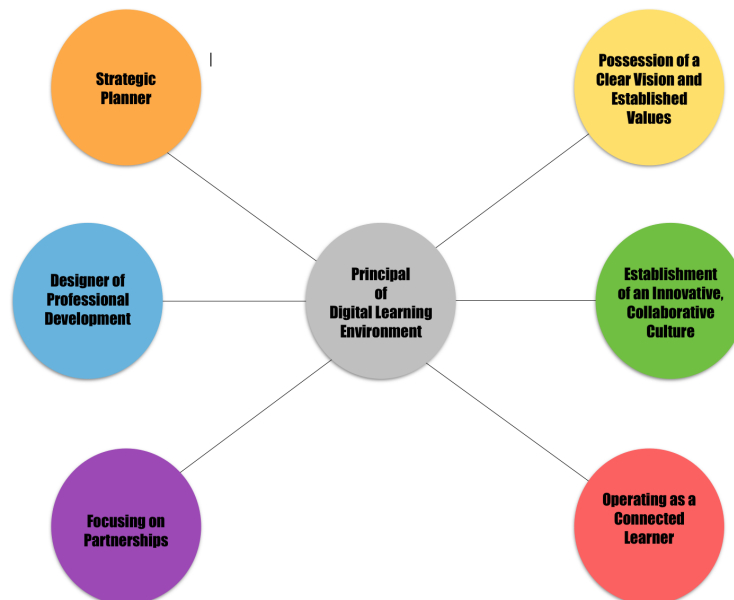


Figure 2. Traits of a Principal of a Digital Learning Environment.

In order to analyze the data collected during research, I examined the coded transcripts of the principal interviews, observations, teacher focus groups, school improvement plans and social media feeds of each principal. The following seven themes regarding principal leadership emerged based upon the analysis of the data:

1. Principals possess and clearly articulate a belief that all students can learn and deserve the opportunity to do so.
2. Principals believe in the power of a strong teacher and strong instructional strategies as key levers for student growth.
3. Principals foster a culture of collaboration and risk taking.
4. Principals act as the instructional leader in their buildings.
5. Principals believe that schools are places of continual learning and provide professional development opportunities aligned to the learning.
6. Principals believe that face-to-face communication is the most effective way to build relationships with internal and external stakeholders.
7. Principals take ownership of their school and directly communicate their expectations and beliefs.

I conclude that these seven themes that emerged from the analysis of the coded transcripts offer relevant information needed to answer my research question: What do the skills, qualities and behaviors of principals look like in practice in digital learning environments? Below is an explanation of the seven emerging themes as well as the stories and connections that illustrate the actions, or the “how”, associated with these

themes in practice. Data to support this discussion comes from the research conducted during my study.

Seven Themes of Principal Leadership

Theme One

Principals possess and clearly articulate a belief that all students can learn and deserve the opportunity to do so.

Theme one speaks to the possession of a clear vision and established values that is identified within the conceptual framework. Both LES and SRES serve a large number of students of poverty. These students are often viewed through a deficit mindset by the larger community and unfortunately even by the educators who serve them. In both of these schools however the principal clearly articulated their belief that all students deserve the opportunity to learn and that all of these students can do so. Mrs. Weaver shared, “99.9 percent of children” can reach grade level status “if we do our job”. SRES’s school improvement plan states the first core belief, “we believe our children are smart and should be given an opportunity to be college and career ready”. LES’s plan states, “we believe students have a variety of learning needs and all students can learn”.

In order to push an environment in which this can occur, staff members have to believe it is possible. This common belief system is built through explicit articulation during the interview process, “common conversations” with existing staff, and modeling of this core belief. Mrs. Weaver said,

We have to believe that our kids can be successful even when society wants us to see their labels. Society wants us to see their home life, society wants us to see

they're poor, but we have to be the spark for them and say hey in this building, you are going to be great.

This belief system leads to high expectations for all students. This means that all students are held to rigorous grade level expectations and that lessons support this learning. Mrs. Weaver stated that lessons should, “reflect the rigor that you would give the highest achieving kid in the universe”. She believes her students deserve that rigor as well. In this environment, no excuses are made and everyone is held accountable for learning. At SRES this translates to transparency, “we talk about it, we believe it, we put the numbers up there and see how many are on grade level, and how many are not on grade level”.

In both schools, principals shared their belief in creating a school environment where students are happy, excited and engaged in the learning process. They both spoke of curating resources in order to have high interest, rigorous materials for students to interact with daily. In LES teachers described that the principal, “wants them (the students) to love learning”. One teacher continued, “we have a built in read aloud time to share books with them which is kind of unheard of, but she wants them to be excited about learning and know that they are loved here no matter what”.

A part of building a school where students are excited to learn comes from getting to know your students and building relationships with them. For Mrs. Taylor this happens when she is able to “sit with kids, listen to kids read” and she shared, “I love, love being able to get into instruction with kids”. Teachers shared, “the students know that they when they see her, she is asking about them and asking how they're doing or what they're learning”. SRES's teachers echo this mindset sharing that the principal

walks through classrooms every day not to observe them but instead because she “needs to know our kids”. One teacher expressed,

She can call every kid by name and can tell you whose sibling is whose, where they live, and whose grandma is whose aunt but she also knows the kids as readers, as mathematicians. They plan professional development and it’s about real kids and real student work.

During the crew observations I conducted, Mrs. Weaver illustrated this throughout the conversations by referencing individual familial connections, as well as knowledge of medications, or special circumstances for each student. Additionally as soon as a student arrives at either school, they become “ours” to every staff member in the building.

A student centered belief system in a high poverty school translates into a sense of urgency about every decision. Mrs. Taylor and Mrs. Weaver articulated that the master schedule has to be designed around the needs of students not adults because every moment counts. Mrs. Weaver expressed the urgency to fix gaps in learning for all students. She shared,

It is our responsibility to fix it. We are the knowing other, their parent is not and it’s not their parent’s job to go pay for a tutor to fix what we didn’t do, so we will fix it. So we will talk action plan (in Crew) and when we are going to fix it.

Teachers at SRES echoed this urgency; “we don’t have time with these kids to let first year teachers not do well, because our kids don’t have time for us to figure it out”. In both schools, principals shared that some of these gaps can be addressed through technological support. Mrs. Taylor stated, “I just think that’s a way we can leverage those technological resources for kids of poverty”.

In both schools, the principals, the teachers, the observations and the documents illustrate a clear belief that kids are the center of every facet of the school. Mrs. Weaver simply stated, “the bottom line is it has to benefit the kids”. If this is in place then she will work to be sure it happens. Mrs. Taylor echoes this sentiment when describing what happens when she encounters resistance, “I bring it back to kids, when we can talk about kids and what kids need to succeed in school, it’s a lot harder to argue”. In both cases, principals of the schools define their work based upon what is best for all students and holds all other staff to the same expectation.

Theme Two

Principals believe in the power of a strong teacher and robust instructional strategies as key levers for student growth.

Often when people hear that a school is a digital learning environment, they immediately assume that this translates to students sitting in front of a screen all day or into “flashy” practices. In both schools studied, the principals were quick to point out that this is not an accurate picture of their schools. Instead both principals spoke of the importance of a strong teacher and a focus on robust instructional practices as the key to growing students.

Mrs. Taylor shared,

Great instruction doesn’t have to be flashy sometimes great instruction is sitting with kids around the guided math table working with problems and they’re getting constant feedback and individualized assistance. I think when we think about 1:1, we think of really flashy things and sometimes it really just is simple, great instruction.

People often equate flashy with expensive programs or prescribed digital instruction. SRES supports the idea that strategy trumps programs in their school improvement plan stating, “we became a model school by focusing on students and by embracing research based strategies and not programs”. You will not hear expectations of time spent on a device but rather conversations surrounding balance and variety. SRES’s school improvement plan illustrates this with a strategy stating, “utilize a variety of resources, such as technology, books, websites, blogs, twitter, etc. that allow students to create while incorporating concepts found in the instructional standards”. Mrs. Taylor summarized this balance stating,

I believe technology is wonderful and amazing and fantastic but so are tried and true instructional practices. It’s the marriage of those, those great instructional practices with technology that allow us to do things we’ve never been able to do in the classroom before, you can’t substitute one for the other.

These robust instructional practices are difficult without a strong teacher leading the classroom. Mrs. Weaver believes that “digital literacy” is not as impactful as “a quality teacher in the classroom”. Because of this both principals carefully select new staff and work to shape existing staff into the strongest educators possible. SRES’s school improvement plan shared that one of their goals was for all students to have an “excellent educator everyday”. Additionally in their plan when SRES discussed the variety of instructional strategies they emphasized, “the teachers independence to be creative” to meet the needs of their students. Mrs. Taylor acknowledged that the teachers are “the workhouses of the school”, that they are “closest to the kids”, and that they know best what is needed to promote student growth.

Theme two was not explicitly stated in the conceptual framework. The examples shared to support this theme centered on the value of a strong teacher and their robust instructional toolbox. The findings in this study illustrate that a strong teacher and robust instructional strategies were valued above any specific tool, including a digital device, or program. This theme is viewed as an addition to the traits included in the conceptual framework.

Theme Three

Principals foster a culture of collaboration and risk taking.

Being charged with meeting the needs of all students, addressing students that may be very different from your background, and doing all of that while learning new strategies and technological supports can prove to be very difficult for teachers. The high expectations, “no excuses” culture requires extensive support. Mrs. Weaver described, “you reach a point that you get tired and we’ve had some really good teachers who would tell you I can’t keep doing this, I just can’t keep living this life”. The high level of stress makes it very important that the burdens are shared with a collaborative team and that failure is not feared. This type of culture begins with earned trust. Mrs. Weaver said,

It begins when, you as a principal show that you’re vulnerable, that you’ve made mistakes and you’re are not perfect. The first thing I try to do is to be very transparent with them that I do not have all of the answers. I may be sitting in this chair but it’s not because I have all of the answers. I was just the fortunate one that was picked for the position.

This level of vulnerability requires a principal to put any ego aside and open herself to being a partner in the educational process. In order to build trust, teachers need to believe

that the principal is going to “give grace when things don’t work out” as Mrs. Taylor does. This trust building often comes through shared experiences.

Mrs. Taylor spends a great deal of time out in the building visiting classrooms and conversing with students. At times she may walk into a classroom that is not going well and teachers need to know that she is not there to catch them but rather to support them. Because she has not brought it up later in person or in collaborative planning, teachers have come to believe that she looks for ways to promote their growth rather than dwell on the negative moments. Mrs. Taylor shared, “now, I don’t even have to address it” because the teacher will bring it up to her. She will then ask, “what were you trying do” and follow it with asking, “what tweaks are you going to make on that”. She goes on to say, “I just try to support and try to sort of brainstorm how we can help change that”.

One teacher at SRES shared a similar experience with exploring how to help a specific student with significant struggles. The teacher described a male kindergarten student that was not making progress in his reading and was reading his words backwards. She began by exploring if he understood the beginning from the end asking, “where is first, where is last, who is first in line, who is last”. Each time the student would get this correct and she expressed frustration that she was wasting time teaching things he already knew. Pretty quickly, she involved support personnel including the principal in the problem solving process. Over the course of a few months, they finally identified that the student needed a colored overlay to be able to read and write. When they finally found the correct color, the student began to grow rapidly. Throughout the process the teacher described, “the principal gave me different suggestions” and when

they finally found the answer the principal “wasn’t like why did you do all of those other things but said yes, we found what worked”. The teacher and the principal celebrated together that the student “gets to go to first grade” because they figured it out as a team.

As the collaborative spirit grew in these schools, teachers became more comfortable taking instructional risks to meet the needs of their students. Examples of these scenarios were rampant at both schools. Mrs. Taylor shared, “I really encourage teachers to take risks with their instruction, you just don’t know until you try it”. Her teachers agreed with this statement saying, “she just lets us do what we need to do and trusts us to do it”. A teacher leader at LES supported this notion, “I can’t think of a single instance where she’s said no, I don’t want them to do that”. This same leader went on to share a specific example,

One year our fourth grade teachers designed a museum. They had it set up and the tech facilitator and I walked around and we’re looking at this stuff and some of it was just wrong. We were a little horrified a couple of times at different places. I remember going to the principal and asking what do you think? She responded that she was so proud of them and was just glowing. She really emphasized the process and said they tried something different. She admitted there were some things that were wrong and said yes, we need to discuss that later but she emphasized their willingness to do something different and the fact that the kids were excited about it.

After this experience, the teachers tweaked it for the next time but “felt good enough because they were reinforced for stepping out of the box for it”.

At SRES, a teacher shared a similar experience after moving to a new grade level and struggling to keep up with the pace as she learned new standards. The teacher described,

I just had to say to the principal, I have to slow down. My kids are not getting it, I am speeding through and it's working for most of the other classes but it's not working for me. Was she (Mrs. Weaver) happy when I said it. No, but I said I need to do some things differently. I implemented a math notebook that took extra time. She had to trust me a little bit. She knows that I trust in our vision and I wasn't trying to derail but she is going to check on you. You can bet my observation was during math.

Throughout this process, Mrs. Weaver supported the risk and conversed with the teacher about the impact on students.

Theme three aligns with the establishment of an innovative, collaborative culture. Overall, the cultures at LES and SRES are ones of collaboration and risk taking. Staff members articulate, "we are all responsible for all of the kids". They understand that if a student has a need, they are all responsible for taking and supporting instructional risks to address the gaps. This culture allows teachers to feel trusted and supported in the difficult work they do day to day to meet the needs of all students. The examples shared illustrate actions that are aligned with the establishment of structures for formal and informal collaboration as well as risk taking behaviors.

Theme Four

Principals act as the instructional leader in their buildings.

Mrs. Taylor and Mrs. Weaver both identify themselves as the instructional leader of their buildings. They both use the same analogy of getting "your hands dirty" with curriculum as essential to building trust in your voice as the instructional leader with the staff. This happens for both of them as active listeners in collaborative planning and active questioners in the professional learning community or crew processes.

As the instructional leader, Mrs. Taylor is called upon to share the “why” behind their professional development, instructional strategies, or resource management to meet the needs of their students. An example of this is her time spent each year building the capacities of her enhancement teachers as they adjust to her school’s unique schedule.

She shared,

It’s been a challenge because we’ve had a different enhancement team each year up until this year. I do sit down with the enhancement teachers at the beginning of the year and I had to do it three years in a row. I had to explain the why and what we are trying to do with our schedule. We also set up a PLC for our enhancement teachers and provide a special enhancement day once per quarter. They’ll do their planning that way.

LES’s teachers describe that Mrs. Taylor is “really good about communicating why we’re doing” things the way we they are. Her understanding of the instructional process allows her to explain the why to those who need to hear it.

Mrs. Weaver finds herself explaining specific types of instruction to teachers. In the upcoming year she shared, “I’ve got to go through what I want the problem solving block to look like, the share block to look like, and make sure we are clear on our non-negotiables in respect to the workshop block”. Leading this type of conversation from theory to implementation requires Mrs. Weaver to have a deep understanding of what robust instruction looks, sounds, and feels like. Her teachers describe that she “knows more about reading instruction than a lot of reading teachers”. Mrs. Weaver feels that her role as the instructional leader allows her to be sure that they are “pushing every student forward”. She illustrates this knowledge in the crew meetings where she quotes

standards and is able to offer specific instructional strategies to meet the needs of struggling learners as if she is in the classroom teaching each day.

In addition to deep instructional conversations, both principals articulated that their role as the instructional leader is used to shape the professional development offerings at their schools. Mrs. Weaver shared, “because I am the instructional leader in the building, I’m going to be crafting the professional development in this building”. Mrs. Taylor supported this idea when she discussed teachers proposing professional development to her. She stated, “if it’s something I know and I feel good about it or if it’s something that I don’t know but I do some research and find out that it’s good quality, I will send people”. She went on to say that if this occurs the expectation is that they “come back and train their colleagues”. Teachers at LES described, “she pretty much screens” professional development to determine where it fits, whom it fits for, and if it fits with the vision of the school.

Both principals and their respective staff members describe the principal as the instructional leader of the building. This role is important to emphasize that schools are institutions of teaching and learning. Mrs. Weaver shared, “principals try to abdicate this role” often and that it leads to slowed student and staff growth.

Theme four was not explicitly stated in the conceptual framework. Both principals studied clearly stated their roles as the “instructional leaders” of the buildings. The stories shared illustrated high levels of involvement in the curricular processes. The descriptions involved not only instructional conversations but also the review and allocation of resources to support the instructional process. This intentional instructional

focus on resource planning is clarification of the strategic planning trait in the conceptual framework.

Theme Five

Principals believe that schools are places of continual learning and provide professional development opportunities aligned to the learning.

I observed Mrs. Weaver during an open house event. At this event, she asked a classified staff member to print a document for her from PowerSchool. The staff member inquired as to how to run the needed report and Mrs. Weaver responded, “I would love to teach you something today”. She approaches every day with the same desire, to teach something today. The teachers in LES share that Mrs. Taylor has the same desire and shares that by telling staff, “to be better tomorrow than you were today”. In both buildings learning is paramount for all, not just the students but also everyone who works there each day.

Mrs. Weaver is critical of her peers sharing, “I don’t think administrators are doing the growth they need to do”. She believes that if she is going to challenge the practice of teachers, “I better grow myself”. She does this by “sitting and watching and learning from the teachers”. Additionally, she and Mrs. Taylor are voracious readers and Twitter explorers. They seek knowledge to improve their practice and model the behavior of a continual learner for their staff members. Mrs. Weaver provided an example of a need for continual reflection on practices,

If I see that we’ve got lots of kids coming into the office and I notice my hallways are filled with African American males, shouldn’t I go back and say, what’s going on in their classrooms that’s going to help me fix the symptom of lots of African

American males coming to the office? That to me is my job to constantly question our practice and to go, okay, how can I make that better? Nine out of 10 times, there's somebody out there writing about it, whether it's a blog or a book and all it takes is me taking time to read it.

Both principals advocate for constant reflection on your practices as well as action to improve based upon those reflective conversations.

At LES, teachers will experience whole group professional development as well as small group and individualized coaching cycles based upon personal needs. At SRES, teachers will experience 70 hours of professional development annually either in whole or small groups. Additional professional development is completed on both campuses during professional learning communities or Crew at SRES.

Mrs. Taylor shared, "I don't think we can really hire excellent teachers, I think for the most part we make them, we create them". She goes on to say that she believes, the "PD piece" is essential. In both schools there is a clear priority placed on learning and growing both for students and staff.

Theme five combines two traits from the conceptual framework, operating as a connected learner and the designer of professional development. The research illustrated beliefs from both principals in continual learning through varied means. These means included observations, voracious reading, and exploring Twitter for valuable information. The learning of the principal was then connected to the professional development offered to the staff in the respective buildings.

The conceptual framework utilized the word connected that was described in the literature review as a leader who is connected to the digital world and her school

environment to improve practices. The research analyzed suggests that the word continual should be added to the description as the stories provided examples of the on-going process with each leader.

Theme Six

Principals believe that face-to-face communication is the most effective way to build relationships with internal and external stakeholders.

In our current world, people often communicate using digital methods for the sake of speed or the ability to speak without direct consequence. This communication shift has caused many to lose opportunities for human interaction and the benefits of face-to-face conversations. Mrs. Taylor and Mrs. Weaver shared the same belief that the most effective way to communicate with internal (students and staff) and external (parents or community members) stakeholders was through authentic face-to-face time. Neither of these of the leaders judges the effectiveness of their communication based upon time invested but rather the relationships formed.

I have already discussed that both principals work to form relationships with students by visiting classrooms and having personal conversations in the halls, at lunch or whenever the opportunity presents itself. Communication with teachers can prove more difficult and is often an area of criticism for many leaders. Mrs. Taylor understands that face-to-face contact goes a long way with teachers, “I try to be out and about in the building as much as I possibly can be”. During her time in the building, she “jots herself notes” and tries to mention directly to a teacher, “I saw this in your class” or “I spoke to a student and this what they told me they were doing, they were so excited”. LES’s

teachers stated that if she has an idea in mind for you she will “come to you personally and say this opportunity has come up and I think you would be a good fit for it”. Mrs. Weaver discussed celebrating teacher successes, “first I think it’s a relationship, one-on-one, we all like a little treat but I think it’s more important (to be) relationship oriented”.

This same belief impacts communication with parents or significant adults in both schools. Mrs. Taylor described,

Parents call me, I call them, but I will do home visits with parents that we really need to build that relationship with, if they will allow me, and I try to be respectful of people. I have had a lot of conversations on front porches.

Mrs. Weaver shared that although she does not expect a lot from parents because “poverty is so busy” when they do visit the school she tries “to talk to their families, to their mamas so they feel comfortable”. She shared, “I’d much rather have a conversation with you and talk to you” than communicate using social media, email, or text. For those parents that she needs to speak with but that do not visit the school she said, “I do a lot of home visits, go out and see them”. If they are not home, “I’ll drive out there and leave a note” and continue to try to communicate.

At times when students are provided devices, parents will share that they are opposed to their student utilizing it. Again Mrs. Taylor shared that a face-to-face conversation rooted in her instructional knowledge helped to combat their concerns. She shared, “we try to be a partner with parents” and meant to say, “I hear where you are coming from, but we use it for instruction and it’s important for instruction”. She further clarified,

If there's a way we can work together to help you feel safe with your child (and technology), absolutely we are going to and for the most part, we've been pretty successful with that. One of the things that I share with parents is that when we're doing guided instruction, which parents really value because they realize that their child is getting instruction on their level, other kids need to be doing something meaningful that's also on their level. There's no great way for a teacher to personalize instruction for another 15 children in the classroom without the use of technology.

This face-to-face conversation centered on doing what is best for all students helps to lessen the anxiety surrounding the device. Mrs. Taylor always makes time for the opportunity to have these discussions. Teaches at SRES shared that their principal is also never too busy and that she always communicates, "on a first name basis, handshake, looks them in the eye, open communication, call me, come visit me, she meets them at the door".

In addition, both leaders feel it is important to communicate with external community partners face-to-face as well. Mrs. Weaver reaches out to partners and shares the school's story and needs in order to bring them into the building. Mrs. Taylor shared that their partnership with the local police department in the form of part-time resource officers has proven to be an unexpected "huge communication piece". She explained, "the officers know what is going on with different families in our community and that has been a really good source of information both ways". Additionally, Mrs. Taylor seizes the opportunity to share the good things about LES with pastors, churches, "in restaurants when I'm out and about", and "in stores". She shared, "I think with community members and parents that one to one communication is just so key and being willing to talk to people and smile with people" is so important.

Theme six is linked to focusing on partnerships in the conceptual framework. This theme provided examples of relationship building with both internal and external stakeholders. As an additional point regarding this trait, the research stressed that using direct communication and not digital methods is best for building relationships that support student learning.

Theme Seven

Principals take ownership of their school and directly communicate their expectations and beliefs.

At times a principal may confuse the ideas of needing a collaborative culture and building teacher's voice with relinquishing the responsibility for teaching and learning in their building. The principal is ultimately responsible for creating a learning environment that promotes student success. In both schools studied, the principals were acutely aware of this responsibility and because of their deep passion for children took ownership of this charge.

Teachers in both schools were aligned with the school's vision, felt empowered to take risks, and valued collaboration with their peers and their leaders. When asked to describe the leadership style of their principals they used words like, "authoritative", "direct", "professional", and "approachable but maybe not in your first years". Teachers at SRES described, "she puts that boundary up in a good way, in a respectful way" and shared, "you aren't going to see her hanging out with anybody". It seems that both

principals have been able to balance building trust and relationships for the betterment of students with setting clear expectations even in the face of resistance. Mrs. Taylor recounted shifting the PLC expectations in year two of her time at LES.

There was a lot of resistance because we started looking at the standards and really learning the standards, spending a lot of time delving into those and that was not fun. Teachers did not like doing it and they had never done it. It's not the most exciting work ever. They also were not used to having to really think deeply in PLCs or collaborative planning. So I took a very, very active role in that at that point. I had to back up a lot and re-explain things, have conferences with people, there were tears in the principal's office, there were tears in collaborative planning.

A teacher leader at LES stated at the time, "I thought they were going to kill her, I mean it was painful". Mrs. Taylor stayed the course and kept pushing staff to examine the standards because she believed it would lead to "instructional improvement".

Mrs. Taylor and Mrs. Weaver both believe that you begin sharing expectations and belief systems during the hiring process. Mrs. Weaver stated, "hopefully you've already clarified this is a place you don't want to come if you don't believe this".

Sometimes however, a teacher joins the team that still needs a bit of convincing of how serious these leaders are. Mrs. Weaver described,

We hired a teacher a number of years ago that came in and I said to her, now you know all of your kindergartners will be on and "F" (reading level) when you get through the year. She said there's no way. I said, well, I promise you they will be if you do what we do in this building. She'd just come from a sister school where mainly they go to maybe a "B" which is not anywhere near what kindergartners need to be. At the end of the year, every single one of her students was an "F". I asked, what are you thinking now? She said, I never thought it was possible, I thought you were crazy, but everyday I made instructional time valuable, I believed in them, I encouraged them. She said you were right, I did it.

Mrs. Weaver shared, “I think it’s helping people just see past the mess of what we all live in”. Teachers at SRES were clear that her expectations were not “up for debate” and said, “you’re going to do it”. However if you disagree teachers shared, “she will say let’s talk about it” in a private discussion. She will, “hold you to a standard, you follow those things, and then you have flexibility, and then you are who you are”. Teachers are clear, “we choose to be here” and we believe in the “core beliefs set by administration”.

Teachers at LES shared, “everybody’s held accountable” and no one is “making excuses”. Teachers at SRES echoed, “if you see something that needs fixed, they want to know but come with some strategies” and be prepared to have the conversation directly with the team members that can help fix it. Mrs. Taylor stated, “I expect adults to be adults and to work together and I base decisions on instruction” and student learning. The bottom line for both principals can be summarized by Mrs. Weaver, “we are not going to let those kids fail, and you take care of kids first”.

For Mrs. Weaver this belief system spills into every conversation even outside of her building. She mentioned multiple times during the course of interviews conversations she had with other educators in which she expressed her moral imperative that educators are responsible for the learning of all children. Her teachers described, “she is very vocal at county meetings about what’s good for kids and what’s research based”. Mrs. Weaver’s peers do not always like that SRES is different. She responded,

They don’t always like that this school is different but I always challenge them. Why? Why can’t you push back? Why do you have to agree? What would happen if a group of us began to think instead of just following? The last time I checked the principals weren’t supposed to follow, we were supposed to lead and

so I push back on them and say, all you have to do is take a stand and say it's not right for your kids.

Mrs. Weaver understands that she is afforded some latitude because SRES “has gotten results”. However, both principals are passionate about why they do that they do and clearly articulate that to any audience who will listen.

Theme seven was not included in the conceptual framework. The stories shared to support this theme illustrated that both principals expect responsibility for the teaching and learning that occurs within their schools. They are described as “authoritative” and “direct”. Their behaviors display that regardless of the challenging circumstance, they will push students and staff forward through clear expectations and deeply communicated belief systems.

Seven Themes Connected to the Conceptual Framework

During analysis of the data collected, the themes described above emerged from the research. As detailed above, each theme was considered as supporting the framework, causing an addition to the framework, or warranting a re-classification of a specific trait. These comparisons were used to generate an expanded framework of a principal of a DLE. This framework is depicted in Figure 3.



Figure 3. Revised Traits of a Principal of a Digital Learning Environment.

Many of these traits are harmonious and naturally align while others at first glance may be difficult to visualize in context. For example, if a leader takes ownership of a school and sets clear expectations for all, how then does she foster a collaborative culture? Additionally, how might these traits blend within a leader allowing her to successfully lead a DLE? In chapter one, I described a DLE that was personalized and student-centered. In order to synthesize the role of the leader of a school that has

transformed into a DLE, I have created a brief description of a leader that embodies the expanded framework in action.

A Day's Work of a Principal of a DLE

The day for a principal of a DLE begins with classroom visits. As she walks, she speaks to students and it is evident that she knows them both as a people and as learners. You hear her ask about the book the student is reading or the project he is working on in math. In each room, she speaks to the teacher and inquires about their day and the progress of particular students. She speaks to the most challenging student and encourages him to work hard.

Later in the day, the principal joins a professional learning team that is discussing the most recent benchmark assessment. She listens intently, reviews the data generated by the learning management system, and questions teachers to ensure that they are pushing each and every student towards improvement. She inquires about what supports are needed for forward progress and makes a plan with the teachers while present to obtain these resources whether human, financial, or time based.

After leaving the professional learning team meeting, the principal takes a moment to record some thoughts or reflections about the gaps discussed. After school, she will research how other schools may be addressing the same gaps. This learning process will then shape future professional development and teachers will recognize this was generated by their feedback and is centered on their students' needs.

After supervising lunch, the principal will call a few parents of students about which she has noticed issues with academic progress. This could be based upon her own

observations, data reviewed, or teacher feedback. When she does not reach one of the parents, she asks her guidance counselor to accompany her on a home visit in order to discuss with a parent the next steps needed with the student. In addition, while she is out visiting she stops by a local church to inquire about possible mentors for individual students who need additional supports.

On her way back into the school, the principal stops into the media center where a group of teachers are facilitating reading groups that have been grouped based upon benchmark data. This is a new strategy that leverages the instructional power of multiple teachers plus two literacy support teachers in order to appropriately group students based upon their needs. One group is using Google Cardboard to virtually visit an aquarium to establish context for the text being read. The principal takes a moment to sit down with the students and use the Google Cardboard tool and asks a few questions to students about what they are experiencing virtually. The principal praises the teachers for trying a new approach. She reminds them that she wants them to share what went well as well as what may not have worked at the next professional development session.

The principal of this DLE spends her day focused on student learning and clearly models her belief that the school is about all kids not adults. Her teachers do not doubt why they are there and whom they are there to serve, the students. However, they feel valued and empowered as the front line of student learning. They are trusted as educational experts and held to clear, challenging expectations.

This example illustrates that the leader of a DLE simultaneously embodies the qualities of the expanded framework in order to successfully promote an instructional

shift from teacher-centered practices to student-centered personalized practices. This shift is supported by access to technology but the device is not the focus of the day but rather occupies a supporting role.

The Principal of a DLE

The purpose of this study was to answer the following research question: What do the skills, qualities and behaviors of principals look like in practice in digital learning environments? The emerging themes connected to the conceptual framework depict these skills, qualities, and behaviors while the descriptive stories shared to support these themes provide examples of these in practice. This rich description of the day-to-day walks of two leaders allowed me to gain insight into the “how” of leadership in a DLE.

From this research, I believe that the principal of a DLE is simply a passionate advocate for all students with a strong instructional mindset. Her work is grounded in providing the best learning opportunities for all students. This leads her to focus intently on instruction in order to meet the needs of each student in her building. She believes in teachers as the frontline of this work and challenges them to think innovatively and collaboratively so that each student is provided equal opportunity for success.

The principal of a DLE knows that she is not the instructional expert but rather the instructional leader of her building. Because of her understanding of the difference between the two, she is a voracious learner. She constantly seeks improvement and leverages every means possible to gain knowledge of the ways to help her students learn. She feels personally responsible for the learning of every person in her building, child or adult.

The principal of a DLE understands the importance of leveraging resources to meet the needs of all students regardless of their backgrounds or barriers. She believes that the digital device is one of the resources that can allow her students access to a world they may not have been able to experience. She believes that the device is a tool to support student learning not the magic bullet that will transform student learning.

The principal of a DLE believes in the power of people to change student's lives. She will work diligently to put the most powerful resources into the hands of the educational professionals, whether that is a book or a device is inconsequential. At the end of the day her leadership is not about the device, it is about students.

Implications, Recommendations, and Conclusion

This research study examined principals of a DLE to illustrate how the skills, qualities, and behaviors look in practice. It expanded upon the current literature available about leadership in a digital context to create a descriptive, conceptual summary rather than a prescriptive list. Through the research, the conceptual framework was expanded upon while the stories and school specific examples contained within the findings and analysis provided a look at the traits in practice.

The literature review described varied types of leaders. The data collected in this study supported that a DLE calls for instructional leadership. Instructional leaders were described in the literature as acting to establish school-wide goals, provide the resources needed for learning, supervise and evaluate teachers, design and implement professional development, and establish interpersonal relationships with and between teachers (Valentine & Prater, 2011). Findings of this study indicated that both principals took

ownership and set clear expectations, possessed a communicated a student-centered vision, intentionally provided instructional resources, used formal and informal observations to support focus and culture, used their learning to design and implement professional development, and built relationships with teachers. These traits are all contained in the revised traits illustrated in Figure 3.

Additionally, the data collected in this study supported that a DLE calls for transformational leadership traits. A study of schools in Tasmania and Victoria by Gurr, Drysdale and Mulford (2005) described the impact of transformational leaders on student and school outcomes. They found that leaders were deemed successful if they promoted a “culture of collegiality, collaboration, support and trust” (p. 543). Participants in their study established that successful principals’ values and beliefs were centered on the sound education of all children in an inclusive environment that encourages the input of all stakeholders.

The research contained in this study included examples of how each principal established a culture of collaboration through trust building. Mrs. Weaver articulated that this begins, “when you as a principal show that you’re vulnerable”. Mrs. Taylor believed that a collaborative culture was built when, “you give grace when things don’t work out”. In both schools, the leaders worked to become partners with teachers in the educational process.

Linked to transformational leadership both principals possessed and clearly articulated a belief that all students can learn and deserve the opportunity to do so. Mrs. Weaver shared, “99.9 percent of children” can reach grade level status “if we do our job”.

LES's plan summarized the belief, "we believe students have a variety of learning needs and all students can learn". During interviews, observations, and the analysis of documents, repeated examples of the clear focus on all students and how to meet the needs of all students as individuals emerged.

Gurr (2015) stated that the "ISSPP results indicate that no single model of leadership satisfactorily captures what successful principals do" but rather that "principals are neither transformational nor instructional leaders, but show elements of both, with the use of both styles especially important for schools in challenging contexts" (p. 138). Valentine and Prater (2011) conducted a study that supported a mixed skill set to succeed in most school contexts. The findings of this study support that both leadership types were present in the contexts of LES and SRES. This study can serve as two additional examples of settings that called for a mixed skill set.

Implications

The research conducted provides implications for principals or those that desire to serve in that capacity, school districts, and principal preparation programs.

Implications for Principals or Future Principals.

Literature indicated that "a large proportion of the school administrators feel that they are unprepared to supervise teaching and learning technology" and "repeatedly cited their need for technology training, workshops, and continued education" (Leonard & Leonard, 2006, p. 220-221). Brockmeier, Sermon, and Hope, 2005 found, "only 59% of the respondents indicated that they agree or strongly agree that their technology expertise resulted in them being viewed as a technology leader" (p. 53). The findings of this study

do not indicate that in the two schools examined the principals possessed expertise in specific technological tools. Both described that they delegated the use of social media to others while Mrs. Weaver readily admitted, “I don’t know how” to post on Twitter. Instead both principals viewed themselves as continual learners and participants in development targeted at technology integration or specific programs. The focus of these leaders was not expertise on a tool but rather strong instructional practices that could be supported by a tool. Based upon these two principals, others should not examine their readiness to lead a DLE based upon technological expertise.

Additionally, current and future principals could reflect upon the revised traits of a principal of a DLE to examine their own practices in this context. It could prove beneficial to examine the stories found within the research that provide examples of how these traits are illustrated in practice in these two schools. Approaching this study as a learner, I have been able to reflect on my own practices and context.

Implications for School Districts.

The themes that emerged from this study, the examples that supported these themes, and the revised traits of a principal of a DLE could add to information used by school districts to recruit, select, and retain principals. In the literature review, it was mentioned that during a study conducted by Richardson, Watts, Hollis, and McLeod (2016) that only “one out of every six job announcements even mentioned the need for some technology-related expertise”. Based upon the study of these two principals, that type of expertise would not be necessary in the recruitment process.

However, the findings of this study could be used as an additional tool in the development of interview questions or experiences. Proposed questions could surround the revised traits or experiences could be designed that allow candidates to showcase these traits in a simulated context. Additionally, the research could be utilized to develop professional development for principals in a DLE. These offerings could target the specific traits. For example, professional development could be targeted at capacity building as an instructional leader or experiences that challenged belief systems. Hallinger (2011) stated, “the capacity to read your context correctly and adapt your leadership to the needs largely determines your success”. This research could assist school districts by adding information to the tools used to identify leaders who can recognize school context and then adapt to promote student success.

Implications for Principal Preparation Programs.

As stated in the introduction of this study, schools of the United States are quickly considering technology as a requirement of classroom instruction. The expectation is transforming to a 1:1 student to device ratio in our schools. This context is no longer one that can be considered as a possibility but rather an inevitability in a principal’s career. Richardson, Watts, Hollis, and McLeod (2016) state, “pre-service preparation programs have a responsibility to ensure that school leaders are trained for the job they will soon accept” (p. 87). This job will likely include leadership in a DLE. McLeod, Bathon, and Richardson (2011) deemed that there was a disconnect in preparing school leaders, “who understand what it means to transform student learning environments in ways that are

technologically rich, meaningful, and powerful” (p. 293). The findings of this study provide examples of areas to target when building the capacities of future principals.

Recommendations for Future Research

I would recommend that this research be expanded to include additional principals in order to expand upon its use as a tool for selection of potential candidates to lead a DLE. I believe that further research would lend more support to the impact of this research as a basis for possible rubrics to be used in an interview process. Additionally, expansion could also lend itself to shaping a robust evaluation tool for principals serving in a DLE.

In Cuban’s (2018) study of exemplar classroom settings, he described a disadvantage to studying “best case” classrooms or “sampling on the dependent variable”. He described,

The dangers in synthesizing common features of successes become evident when you take a step back, since without variation in the sample – no control group, no comparison cases – the “wisdom” gained from looking at “best cases” may bear little relationship to the “wisdom” gained from looking at failures or those instances in the middle of the distribution.

In this study, district level leaders identified two exemplar principals after reviewing a list of traits framed by the literature. This study mimics the disadvantage described of studying exemplar classroom examples. I would recommend that further research be conducted of varied DLE examples without designation of success. This research could further investigate the list of traits of leaders in practice, deepen the support for, add to, or change them entirely. In addition the inclusion of failures or those cases in the middle

could provide insight into which of these traits may be pivotal to success or if it is necessary to have all present.

Conclusion

I selected this research topic because it bridged two areas that I was very passionate about in education, technology and leadership. After many hours of research and reflection, I realized that my passions should be rephrased as instruction and leadership. My attachment to technology is not as a result of being a digital native, as I am not, but rather because of the power I have seen from it to shape the instructional experience for students. The impact of this research study served to clarify for me that “computers and their software are subordinate to the overarching goals for students and adults in the school” (Cuban, 2018, p. 65).

Throughout this lengthy, laborious process, I have come to terms with the idea that technology in and of itself is an incremental change in the educational process. The true fundamental change I seek is a move from teacher-centered practices to those that are truly student-centered. This is best visualized for me in the shape of a triangle. In this visual, the student is the point of the triangle. The traditional educational practices place the triangle in the upside down position with policymakers as the base, school boards as the next level, district level leadership next, followed by school based leadership, teachers, and finally students. When upside down, everything funnels down to the student, is already decided by those above, and little room is left for student voice. Instead our triangle should be “point up” with students first dictating our needs, supports, and tools. A digital device has a place in both formats. The first places it into the hands

of all learners as an imperative piece regardless of where they are or where they are going. The second format places a device into the hands of a learner when needed as a tool to personalize their experience, open doors, engage their interests, and ultimately equip them for their future.

The time spent with the two principals studied was an invaluable learning experience. It highlighted who I am as a leader but also who I am not. It is my hope that as others read this research they will get a glimpse of the same impact. The journey of this research has been difficult, frustrating, and at times even called painful. However as I close this chapter, I have made a list of many titles to now read, places to go and visit, and connections that will shape my practice long after this process has ended. It is not a step in my educational journey that I took lightly and it is not a step that I would advise others to underestimate. This journey has changed me both personally and professionally. It is my hope that I will continue to reflect upon my practices and assist other leaders in reflecting upon theirs so that we all may become better leaders that make a positive impact on students of the future.

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APPENDIX A

PARTICIPANT SELECTION COMMUNICATION

Dear Superintendent or Assistant Superintendent of Curriculum and Instruction,

I am conducting a doctoral research study to develop a profile of a principal of a digital learning environment. The profile will be comprised of the qualities, skills and behaviors of the principal in practice. This profile will highlight the “how” of leadership in a digital learning environment. It is my hope that the research could assist in the recruitment, selection and retention of principals as well as shape professional development offerings and principal preparation programs.

As a leader of a district that has implemented digital learning environments, I am asking you to reflect upon the principals in your district and nominate one leader to participate in my research study. In order to identify which principal best fits this study, please review the questions below to make your choice.

Do you know a principal in your district who...

- Possesses a clear vision of a student-centered digital learning environment that translates into learning experiences that are relevant, collaborative, personalized and connected through digital resources?
- Establishes an innovative, collaborative school culture that promotes risk taking and open dialogue about ways to improve student learning?
- Operates as a connected learner by utilizing social media to grow professionally and establish professional relationships?
- Focuses on developing partnerships with external stakeholders?

- Leads the design of school-based professional development that includes professional learning communities, differentiated workshops, book studies, and other unique ways to challenge and support teachers?
- Strategically plans to reach their vision?

APPENDIX B

PRINCIPAL INTERVIEW QUESTIONS

Interview #1

Introductions

Discuss the purpose of the study

Obtain informed consent signature

Describe the structure of the interview (audio recording, note taking)

Interviewee questions

Questions:

How long have you held your current position?

Could you briefly describe the positions you have held in education?

How would you describe your current school demographics? (Race, socio-economic, EC, ELL)

How many certified and classified staff members do you supervise?

Please describe the level and type of digital access that students in your school have.

Does the level of digital access impact your school and community? If so, how?

How does the 1:1 program impact students of poverty in your school?

How long has your school been 1:1?

What is your overall vision for this school?

Describe what you want student learning to look like in your school. How do you move teachers towards this type of instruction?

Will you describe a specific classroom example that illustrates this type of student learning?

How do you establish a culture in which teachers are willing to take instructional risks?

Will you share an example of a teacher who has taken an instructional risk and how that risk turned out?

How do you celebrate teacher successes?

How do you address failures?

Interview #2

Revisit the purpose of the study if needed.

Interviewee questions

Questions:

How do you build teacher leadership capacity in this school?

In what ways do teachers lead?

Describe examples of teacher collaboration within your school.

How are you involved in these examples of teacher collaboration?

How do you learn and grow professionally?

Describe your most recent professional growth experience.

What types of social media do you use? How do you use these tools and how often?

How do you communicate with your students? Staff? Parents? Community?

How do you market your school?

When you share your school's story, how do you describe it? In what venues do you find yourself sharing this story?

Who do you consider to be your school's partners? How do you foster these partnerships?

How do you involve parents/guardians of your students in your school?

Will you discuss an example of parent/guardian who was not supportive of their student utilizing a digital device? How did you handle this situation?

Interview #3

Revisit the purpose of the study if needed.

Interviewee questions

Questions:

Describe the types of professional development offered in your school.

How would you describe your role in the professional development of this school?

Do you differentiate professional development to meet the needs of varied ability levels?

If so, how?

Will you describe a differentiated professional development experience that has been implemented in your school?

Describe how you plan for school improvement.

Will you describe a time when proper planning was essential to a desired outcome? How did that planning process unfold in your school?

In the final interview, additional questions may be added based upon document analysis notes, observation field notes or previous interview notes.

APPENDIX C

TEACHER FOCUS GROUP QUESTIONS

Introductions

Discuss the purpose of the study

Obtain informed consent signature

Describe the structure of the interview (audio recording, note taking)

Interviewee questions

Questions:

How would you describe your current school demographics? (Race, socio-economic, EC, ELL)

Please describe the level and type of digital access that students in your school have.

How does digital access impact your classroom instruction?

What is the overall vision for this school? How is this vision shared?

What is the overall vision of what strong instruction should look like, sound like or feel like at “X” school?

How does the principal communicate and support this vision of instruction?

Could you describe a specific classroom example that illustrates this type of student learning?

Do you feel comfortable taking instructional risks?

Can you think of a time when an instructional risk may not have turned out positively?

How did your principal respond to this outcome?

How are teacher successes celebrated at “X” school?

How do you feel teacher leadership is encouraged in this school?

In what ways do teachers lead in this school?

Describe examples of teacher collaboration within your school.

How is the principal involved in these examples of teacher collaboration?

What types of social media does your principal use? Do you follow her on social media?

How would you classify her social media presence? (Personal, Professional, Both)

How does your principal communicate with your students? Staff? Parents? Community?

How does your principal market your school?

Describe the types of professional development offered in your school.

Who leads the professional development? What is the principal's role in professional development?

Will you describe a differentiated professional development experience that has been implemented in your school?

Can you think of an initiative that has been implemented in your school within the last year that required extensive planning? How did that planning process unfold in your school and who was involved?

Overall, how would you describe the leadership style of your principal?

APPENDIX D
OBSERVATION PROTOCOL

Date:
Time:
Observer:
Location/Setting:

Descriptive Notes

Reflective Notes

General Question: What are the experiences of the principal and the audiences in the selected setting?

Sketch of Setting