2023

Virtual School Principals: Responsibilities and Challenges

Lacresha L. Cooper

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by
Lacresha L. Cooper

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
and School of Criminal Justice in Partial
Fulfillment of the Requirements for the
Degree of Doctor of Education

Nova Southeastern University
2023

Approval Page

This applied dissertation was submitted by Lacresha L. Cooper under the direction of the persons listed below. It was submitted to the Abraham S. Fischler College of Education and School of Criminal Justice and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

Susanne Flannelly, EdD
Committee Chair

Michael Simonson, PhD
Committee Member

Kimberly Durham, PsyD
Dean

Statement of Original Work

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Lacresha L. Cooper_____
Name

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Date

Acknowledgments

This dissertation was made possible through the support of many people. Thanks to my committee chair, Dr. Susanne Flannelly, who assisted me with many revisions and helped bring clarity to what was otherwise confusing. Also, thanks to my committee member, Dr. Michael Simonson, who offered guidance and support.

Thanks to Nova Southeastern University for awarding me a dissertation completion after an exhaustive attempt to complete this milestone and providing me with the financial means to complete this study. Thank you, God, for your grace and mercy every time I felt defeated and like I could not get past the barriers that were presented throughout this process. Finally, thank you to my sister, parents, and numerous other loved ones who stuck with me throughout this long journey, always showing love and offering assistance.

Abstract

Virtual School Principals: Responsibilities and Challenges. Lacresha L. Cooper, 2023: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education and School of Criminal Justice. Keywords: virtual school principal, virtual school history, diffusion of innovation, digital divide

This applied dissertation was designed to provide concise information and research to delineate the role of the virtual school principal (VSP). The research available was outdated, scarce, or inadequate. The role of VSPs and the challenges that are faced were unclear.

This researcher has found very little evidence to establish whether virtual school program modifications have had any change in the digital divide. The descriptive information for the case study was gathered through interviews and a demographic survey. The analysis included use of the Innovativeness Scale, which was used to gather data on the level of *innovativeness* of VSPs. Participants in the results fell within the innovativeness of diffusion of innovation and early majority group. A high level of educational attainment, upward social mobility, and a propensity for innovation were suggested by demographic data. The interviews revealed four themes: (a) role of administrator, (b) duties and responsibilities, (c) characteristics, (d) challenges, and (e) implementing new ideas.

This case study contributes to the body of knowledge on Kindergarten–Grade 12 (K–12) online learning as well as digital divide and diffusion studies. Consequently, this case study contributes to both public awareness and knowledge of access issues encountered by VSPs in diverse K–12 public virtual schooling systems. This study contributes to any additional investigation on the issues of VSPs and methods for closing the digital divide (e.g., helping underrepresented student groups in public K–12 virtual education systems in Florida or across the Nation).

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Chapter 1: Introduction

Statement of the Problem

Principals of virtual schools play an important role in ensuring effective online learning and face unique challenges in managing a remote learning environment. As of 2018, virtual schools sustained being the central topic for politicians. Politicians are interested in understanding the possible effects of virtual schools on education and in adopting legislation that will support their efficacy and accountability, for virtual schools are a choice that students are making more frequently. The problem is that there is no established role in the South for the Kindergarten–Grade 12 (K–12) virtual school principal (VSP) that includes the responsibilities and challenges of an online learning environment in K–12 virtual schools. The traditional brick-and-mortar principal's function is to provide instructional leadership for the planning, management, operation, and evaluation of the academic program. The responsibilities of the program administrators at this southern virtual school include but are not limited to (a) managing teachers;
(b) ensuring pupil completion of the instructional program; and (c) working with parents, students, support staff, and certified teachers who "virtually" facilitate a student instructional program (Florida Virtual School [FLVS], 2014).

Molnar et al. (2019) reported that 501 full-time virtual schools enrolled, an additional 297,712 students, and 300 blended schools registered 132,960 more students during the 2018–2019 academic calendar year. In 2016–2017 and 2017–2018, admissions into virtual schools increased by more than 2,000 students. In comparison, blended learning admissions increased by over 16,000 during this period. According to Molnar et al. (2019), virtual schools selected generously fewer minority and even fewer low-earning students than public, government-funded schools. According to these data, there is a need to develop,

retain, or attract students in two subgroups of minority students and low-income students. Molnar et al. (2019) reported that prospective students, researchers, and educators believe that virtual education has gained the interest and value, for full-time virtual schools have expanded personalized learning. In March 2020, the COVID-19 caused schools to shut down worldwide. Li et al. (2020) stated that, around the world, more than 1.2 billion students were out of the traditional classroom. Therefore, learning and educational leadership has changed significantly, with the fast development of e-learning, whereby education is being executed at a distance and by way of digital platforms. During this period of global closures, politicians and educational leaders have been contemplating whether online learning's popularity will persist after the pandemic use has ended.

This southern virtual school was established in 1997 and has expanded across this southern state in both population and staffing (Gemin et al., 2015). Through technology conferences and workshops that the researcher has attended, the researcher has become aware that discussions with specialists in online learning have increased, especially on how professionals in the field of education are currently providing high-quality instruction through Web video platforms or applications, which have, during the national pandemic, become a sought-out form of instructional delivery. The virtual school and blended learning models will continue to grow and metamorphize in the world's current state. According to Richardson et al. (2015), VSPs will need to strengthen, develop, and expand within instructional leadership and management to meet challenging times.

Chingos and Schwerdt (2014) ascertained that online school leadership and public policies are still developing and noted limited research in the review literature. Furthermore, Chingos and Schwerdt determined that VSPs and the virtual community they serve have delineated or understood the VSP position. This finding is directly connected to Quilici and

Joki's (2011) findings in an examination that the Interstate School Leaders Licensure Consortium (ISLLC; 1996) used in its standards as a requirement for professional certification. As defined by the ISLLC Idaho Standard 2, principals viewed themselves as instructional leaders**,** and online teachers viewed their online VSPs as managers. Therefore, even with the ISLLC standards, the information is not clearly understood. These standards also point out that once a VSP's leadership role is delineated, administrative staff can mobilize their organization and attain the skills necessary to facilitate educational development. Administrators of online schools often supervise programs across states. Managing programs and individuals is challenging, for one cannot foresee future needs and challenges in the virtual environment (Bakia et al., 2012; Richardson et al., 2015). The problem must be rectified with a written definition of the VSP's role. At this time there, is limited research available that clearly states the role of the VSP and includes the responsibilities to meet the challenges that VSPs face.

Phenomenon of Interest

The VSP position continues to change over time (Jefferis, 2015). In traditional face-to-face school settings, districts place an increased level of accountability on principal leadership and knowledge for school improvement and the student's academic achievement. (Yeigh et al., 2019). As of March 2019, the United States has been affected by surging coronavirus cases. The pandemic forced school districts to close classrooms and go to remote, online instruction, creating educational barriers that could adversely affect students and staff. In this southern state school, districts have met to determine the safest delivery of instruction when effected by a state of emergency such as the rise of COVID-19. Everyone is concerned with whether another rise might occur in COVID-19, or another form of emergency might occur that could lead to school closures. Branch et al. (2012, as cited in

Figlio et al., 2016) confirmed that a school principal has more effect on educational outcomes versus a superintendent who performs primarily a supervising officer role, distributing district guidelines.

According to Jefferis (2015), the role of the traditional school principal depends on the individual's opinion. Furthermore, Stone (2014) considered this area to be of concern because a discrepancy exists between VSPs' and staff's views. The defined role of the principal is the function and success of a particular virtual school. Therefore, the phenomenon of this research problem in this study was to determine the role of the VSPs and their mission to provide access to all student's educational opportunities no matter their location and ethnic background. Weiss (2018) confirmed that giving admittance to courses does not ensure that learning will occur and having merely access does not guarantee that genuine instructive accessibility to all American students (p. 3). In addition, Weiss confirmed that additional variables must be revised in this content to provide an innovative role to personalize the learning that takes place and to include cultural relativism. The Organization for Economic Cooperation and Development (OECD; 2012) discussed the variables concerning equity, staffing, institutional structures, and VSPs who are more effective. Although these are the same variables faced in traditional brick-and-mortar schools, VSPs have similar issues, and their days look entirely different from a traditional school principal (Horn & Staker, 2011). VSPs have unique challenges in addition to those that the traditional brick-and-mortar school principals face (Young, 2017). Epstein et al. (2011) confirmed the policymakers' concern of policies and rights advocates over the benefits derived from information and communication technologies. Dolan (2016) explained that persistent performance and opportunity inequalities between developed and developing countries—as well as gaps within the United States along socioeconomic, regional,

educational, ethnic, and gender lines—have come to be recognized as the *digital divide*, a concept that calls these differences and serves as a marker for questions about them. Goncalves et al. (2018) found that equity in virtual school access issues is not only focused on equipment, but also includes resources and support for students with educational needs. Although the virtual school was influenced by government and public policy to obtain equalized access to high-quality education, this learning platform still shows digital divide issues. The focus has been on access to equipment in the past to close gaps, but it has not remedied equity in educational opportunities and academic success (Hoffman & Novack, 1998, as cited in Talukdar & Gauri, 2011). Therefore, this researcher believed that a thorough review of the literature and an examination of the Interview Protocol and Guide (IPG; Appendix A) would provide results that would give a clear explanation of the challenges of the VSP.

Background and Justification

The No Child Left Behind Act of 2001 and the U.S. Department of Education's National Educational Technology Plan (Thomas, 2016) continue the attempt to respond to the increased number of students in need of formal education that includes that same support systems offered in a nontraditional school setting. During the onset of the COVID-19 pandemic, Florida, along with the world as a whole, was experiencing issues in the education market, especially when traditional school settings were inaccessible. Traditional school settings (as of March 2020) had established virtual learning opportunities to ensure that learning did not shut down and affected negatively. Virtual school program success depended on competent leadership and established high-quality instruction, which not only permits educators to guide and manage the learning environment effectively, but also promotes student success. Therefore, especially in this past experience with virtual classes

and, more importantly, for the future implementation of virtual classes, VSPs should have the skills necessary to facilitate education reform, especially in serving nontraditional K–12 students (Quilici & Joki, 2011). Pazur (2021) concurred that studies on effective virtual instructional leadership are limited and that research has not kept up with the upsurge of e-learning; valuable innovations must be created to meet the demands of VSPs. Pazur (2021) found that administrators emphasized select strategies to aid in their programs' success. The five strategies for traditional leadership include**:** (a) preparing students for success; (b) preparing teachers for success; (c) using interactive, flexible course design; (d) monitoring and supporting teachers; and (e) providing overall support for the program. Therefore, Abrego and Pankake (2010) supported the need for a clear vision of the principal and higher administrator roles and how they affect the longevity of online learning and the transformation process. VSPs also must secure the skills needed to lead school improvement efforts through distance learning programs.

The popularity of options for virtual schools are increasing throughout the United States, including public districts offering virtual or blended learning (Watson et al., 2015). The virtual school sector focus is on access to technology and online courses. The lack of transformation in the focus area leads to the continuance of equity issues around advantaged and disadvantaged student divides (OECD, 2012). Although students gain the needed access to technology, some students lack the academic higher order thinking skills needed to excel when using technological tools (Darling-Hammond et al., 2019). In addition to determining the principal's role, the researcher wanted to make the connection to past studies, so any commonalities could be found between VSP roles and challenges. Therefore, in this research study, the researcher sought to discover whether the potential exists for closing equity gaps and developing programs that promote educational equity between groups of

students according to their income, education, and race in public K–12 virtual schools in Florida.

Minimal literature covers the topic of VSPs' roles and responsibilities. Tucker (2014) tried to determine whether virtual K–12 administrators were equivalent to traditional brick-and-mortar K–12 administrators. Stone (2014) reviewed apparent abilities and professional advancement needs of managerial administration in K–12 virtual schooling. In addition, Stone stated that VSPs have had a deficient amount of time for professional development. Using semiorganized meetings, Sivy (2014) led a more extensive exploratory investigation of state virtual school pioneers across the United States. Johnson-Lee (2015) examined the experience, recognitions, and convictions identified with instructional leaders in a K–12 virtual school.

The International Society for Technology in Education (ISTE; 2014) made the *National Instructive Technology Standards and Performance Indicators for Administrators* in 2008 and republished it in 2014 to add indicators meeting current innovations in instructional technology. School districts throughout the United States used and still use these ISTE standards and performance indicators as a guide. The standards were divided into five strands that govern how a VSP leads their school, which are only a few of the threads, including (a) innovative leadership, (b) new era learning and community, (c) clinical practice, (d) institutional change, and (e) digital citizenship. Strand 1 is innovative leadership and addresses rousing and involves linking all participants with a common mission. Strand 2, new era learning and community, anticipates that a pioneer should advance and give learning through innovation, including a community component. Strand 3 is clinical practice, for a pioneer is to advance a cooperative learning climate for staff. Therefore, with Strand 4, institutional change, there is deliberate improvement that

evaluates how authority sets up and looks after structure. Strand 5, digital citizenship, looks for authority to guarantee that students can use advanced devices and assets (ISTE, 2014). Therefore, through this case study design, the researcher sought to gain more specific definitions of VSPs' roles and responsibilities that fit and are built-in job descriptions that can be used across virtual school environments.

Deficiencies in the Evidence

After a very thorough literature review of the VSP's role, the researcher found limited resources on the role of the VSP's leadership responsibilities. Richardson et al. (2015) found growing research in online learning, but research was limited regarding virtual school leadership. Furthermore, Tucker (2014) considered that the development of K–12 virtual education continues to change rapidly, causing the possibility of current research and practices to be soon obsolete. Various virtual school models have varied organizational structures, job responsibilities, and inconsistent titles, affecting research reliability (Tucker, 2014). In addition, in assessing virtual school studies in the current work setting, the researcher found and confirmed the lack of research available about material that includes a defined role of the virtual administrator and what the role entails. Furthermore, the researcher found a gap in the research regarding the effectiveness of virtual educational leadership preparation programs.For school administrators, COVID-19 presented issues with the continuation of learning, digital divides, educational access, information security, and mental health. According to Huck and Zhang (2021), althoough many survey respondents were confident in their ability to provide a good learning environment to enable teaching and learning for K-12 children during the global pandemic, they were far less confident in their ability to enhance student achievement using equity challenges, access disparities, and current district rules. The role of the VSP has been challenging to determine

the appropriate professional development to help address equity on all levels with all student types, including the digital divide (Spanneut et al., 2012).

Audience

The audience that will find this study informative is both principals in traditional brick-and-mortar schools and VSPs. In addition, superintendents and educational leaders, who are responsible for training effective VSPs and considering educational reform, can benefit by reading this content. Furthermore, audiences include staff and students in the K–5 division in this southern state. Moreover, this study provides pertinent information for future and current VSP experiences and practices, in addition to the advantages and interference staff and students face in K–12 online schools face. Information acquired through this study will also help educators to find possible solutions to the existing inequitable divides and assist with the efficiency of virtual school for all demographics, regardless of personal barriers. This data will also help with leadership development by using the current principal's experiences. Therefore, the researcher will explore variables causing the interferences in digital divide gaps and *digital use divides*, and solutions to these problems.

Definition of Terms

Analyses of access to technologies have specific terminology that might be new and unknown to people unfamiliar with the area. To assist with the reading and understanding of this dissertation, these terms are listed and defined.

Blended Learning

This type of learning is an educational approach in which students can learn via online courses in addition to attending a brick-and-mortar institution integrating both face-to-face and online learning (Rita, 2020).

Digital Divide

The term refers to the gap between people who can benefit from digital technologies and people who cannot (Dolan, 2016).

Distance Education

Distance education is "institution-based, formal education where the learning group is separated, and where interactive telecommunications systems are used to connect learners, resources, and instructors" (Simonson et al., 2019).

Ethnic–Minority Students

This term describes a group of people of a particular race or nationality living in a different country or area where most people are from different races or nationalities (Cambridge University Press, 2020).

Instructional Leadership

This leadership mindset includes a purpose that is focused on prompting their students' academic growth and governing a learning community by setting goals, allocating resources, managing the curriculum, delegating duties, and evaluating teachers (Galileo Educational Network, 2017).

Online Courses

These courses are a set of instructional experiences generally conducted through a learning management system via the internet that includes a series of lessons with interaction, learning, and dialogue that can be accessed anytime, anywhere (Top Hat, 2020).

Virtual Learning

The term refers to a digital, online setting in which students follow a curriculum that is taught by lecturers who provide their lectures through video or audio over the Internet. Both an asynchronous (self-paced) and synchronous (real-time) environment are possible for this instruction. (Dung, 2020).

Virtual Schools

The term refers to a form of distance education (Simonson & Schlosser, 2019) that is offered at the K–12 level. Internet courses are provided, time and distance separate the teacher and learner, and students can earn course credits towards grade-level advancements (Vanourek & Evergreen Education Group, 2011; as cited in Toppin & Toppin, 2016).

The Virtual School Principal

For this study, this term will refer to principals, assistant principals, and educational leaders appointed to govern an online, blended, or virtual learning community (Ware, 2016).

Purpose of the Study

The purpose of this qualitative case study design was to determine the role of the VSP so that the role could specifically be determined and defined, including how the VSP can work to improve equity in the digital divide for students in a southern virtual school.

In addition, the research was focused on Roger's (2003) theory of *innovativeness* in diffusion of innovation (DOI) to determine whether divides can develop or increase between groups of students according to income, education, and race (Scott & McGuire, 2017). The DOI theory was used to understand and identify the types of challenges that VSPs will face and that can help or hinder the implementation of a format or resource. The information gained will help the audience make informed decisions about education reform, equity, and attainment at the local and state levels. This information will serve as the foundation and guide throughout the implementation of this study.

Digital divides separate people from each other and hurt their lives in many ways, making it harder for everyone to participate on the same institutional, governmental, and academic levels. Digital divides used to be defined as different levels of information technology (IT) access. However, today, a digital divide shows the difference between

people who can use IT and those who cannot (Dijk, 2020). Although the term “digital divide” has been used in different ways over time, most general, populace-proposed policies to close the gap still concentrate on making more tools available. This proposal was founded on the idea that innovation would then fix academic issues by making online courses more accessible. However, exposure alone does not mean that people will learn. The research on how VSPs affect change, and the sustainability of online learning is limited in reference to more recent studies. Obtaining the defined VSP role and the challenges they face supporting educational reform and equity is crucial to this study.

Summary

In this chapter, the researcher explored the subject of VSPs and how important a role they play in ensuring that successful online learning occurs. There is no established position for them in the southern United States; therefore, VSPs have special difficulties in leading a remote learning environment. The researcher observes that it is challenging to describe the duties and problems of virtual school principals because they change with time. In this study, the researcher explains how school districts had to close classrooms and switch to remote, online instruction because of the COVID-19 pandemic, which resulted in educational hurdles that affected both students and staff.

VSPs must play a critical role in reducing student inequity in the digital divide. According to the literature that the researcher has cited in this study, VSPs can aid in bridging the gap between students who have and who do not have access to technology, thereby assisting in ensuring that every student has access to a high-quality education. Rogers' (2003) idea of innovativeness in the dissemination of invention is used in this study to explain the difficulties that VSPs encounter. Rogers’ idea aids in identifying obstacles that might facilitate or obstruct the use of a format or resource, which might in turn be

utilized to guide educational reform, equity, and achievement at the local and state levels. Digital boundaries keep people apart and negatively affect their lives in a variety of ways, making engagement on the same institutional, governmental, and academic levels more difficult for everyone. The authors of the literature that the researcher reviewed emphasized the necessity of properly defining VSP roles in the digital age and the significance of doing so to guarantee effective online learning overall. Therefore, the researcher contends that it is essential to address educational disparities and to close the digital gap to guarantee that all students have access to a high-quality education.

Chapter 2: Literature Review

In this review, the researcher addresses essential fundamentals for the study to understand better the VSP role from their perspective: (a) the DOI theory, (b) the principal's position in the traditional K–12 context, (c) the history of virtual schools, (d) the difficulties that today's VSP face, (e) background on digital divide and digital use divide, and (f) studies of the success of virtual schools. Through the review, the researcher has discovered that no study exists that specifically describes the VSPs' roles and challenges in the virtual school setting.

Theoretical Framework

Through the theoretical framework guiding this study, this researcher sought to discover what variables could be determined to produce challenges and what relationships could be discovered to identify the roles and challenges of VSP. Scott and McGuire (2017) maintained that anecdotal data suggest that advancement in instructional technology and the DOI theory will help to define and address inequality in various areas. Although many trendy names for online learning programs and options have come about over the last 20 years from policymakers pushing educational initiatives, the results have been consistent. Some children are left behind despite the No Child Left Behind Act (2001; Scott & McGuire, 2017). The educational equity for which policies are written result in inequality of resources and success. The OECD (2020) discussed how the COVID-19 pandemic has uncovered new layers of imbalance that might eventually significantly slow the country's progress. Traditional principals and VSPs have handled the test of giving distance learning as the essential method of guidance for a long time (Seale, 2020). The question stands: How do virtual school systems deliver equitable results in distance learning and tackle challenges that might arise? Educational researchers have looked at many theories to find solutions to

gaps in distance education and virtual schooling. Therefore, in this study, the researcher has focused on the DOI theory as a foundation. This research will be used to interpret the results of the study and whether the theory has any weight with VSPs in the online environment.

Diffusion of Innovation Theory

According to Dearing and Cox (2018), diffusion is a social method that happens with individuals in reaction to learning about an innovation such as a new evidence-based approach for increasing or improving a particular area. Diffusion studies have assisted with establishing the foundation of several other areas of study such as dissemination and implementation of technology advancements in education. Diffusion, as it has been traditionally defined, is a development that spreads through time among people within a social framework through specified routes (Dearing & Cox, 2018).

Rogers (2003) explained in the DOI theory that social stratification issues in association with innovativeness connects with five adopter categories: (a) innovators, (b) early adopters, (c) early majority, (d) late majority, and (e) laggards. These classifications are used to describe adopter patterns on a continuum of innovativeness. In the southern virtual school setting, the definition assumes that innovation can only become accepted and well-known if the existing social network system is used (Scott & McGuire, 2017). However, Rogers (2003) maintained that the DOI theory can be used beyond commercial purposes, especially in educating students. Teaching that produces proficient learners is a constant effort that is ever-changing. Teachers adjust their instructional resources and delivery every year to welcome a new group of students, each with an extraordinary mix of qualities, difficulties, and exposure to learning. They embrace new educational programs and apply new guidelines and commands. Wilson and Conyers (2015) found that-administrators and specialists are consistently keeping watch for new

methodologies and systems instructional researchers in the learning environment recommend. Weiss (2018) recommended that consistent examination is essential to revise and modify strategies to improve to instruction. For educational leaders looking to roll out new resources or forms of instructional delivery, a focus on the DOI theory can be the distinction between an effective schoolwide academic plan and an ineffective one (Weiss, 2018).

Innovators

Innovators (2.5%) are the smallest fragment of the populace in the social frameworks. Rogers (2003) suggested that this gathering demonstrates the largest amount of ingenuity, known as a readiness to change, crosswise over populations in social frameworks. Given the DOI theory hypothesis, this gathering of innovators exists to fight with difficulty and misfortunes; innovators have assets for engrossing misfortunes and are slanted to share in hazard-taking endeavors. Harmonious with such qualities, a trailblazer is slanted toward specialized learning and exhibits understanding and capacity to apply real-world, complex circumstances (Weiss, 2018).

Early Adopters

In the DOI theory, Rogers (2003) proposed that the early adopter (13.5%) group has higher innovativeness levels than the late majority and laggard groups. According to Rogers**,** early adopters tend to accept the "highest amount of assessment administration in most systems. Potential adopters attending to early adopters for admonition and advice about an innovation" (p. 283). In the DOI theory, Rogers, and Weiss (2018) additionally suggested that the more advanced populations (e.g., early adopters) lean towards larger degrees of upward social mobility over late adopters.

Early Majority

Rogers (2003) recognized that the early majority group (34%) manages to waver in its motivation to revolve. The early majority group reflection process involves deliberating over the adoption of new ideas.

Late Majority

The late majority group (34%) is the next largest group to adopt an innovation (Rogers, 2003). Those in the late majority group tend not to adopt innovations as quickly as do other members (innovators, 2.5%; early adopters, 13.5%; early majority, 34%), but they are also not averse to adopting innovations. The late majority group tends to demonstrate uncertainty and skepticism towards that which is new (Rogers, 2003).

Laggards

Rogers (2003) specified that the laggard group (16%) is resistant to change. They are doubtful about new ideas and are the last group in social systems to adopt innovations. Furthermore, Rogers noted that people or different units in a framework who most need the advantages of a novel thought (the less taught, less rich, and so forth) are commonly the last to receive or take on a new development (p. 295). Subsequently, the innovativeness–needs paradox (INP) can fuel hidden social request issues and make increments in social stratification (isolates) among advantaged and burdened gatherings in frameworks. Diffusion is frequently explained by three typical groups of variables: (a) the set of pros and cons, or attributes, of each innovation, including the characteristics of adopters, particularly potential adopters' perceptions of opinion leaders' responses, or social power; and (b) the larger societal and governmental relevance, including meaningfulness of problems pertaining to the advancement, what opponents and proponents shape the definition of the advancement, and (c) the planning and scheduling of its introduction (Dearings & Cox,

2018). This framework has been chosen to assist VSPs with the self-efficacy of faculty and staff. Specifically, attempting to gain a better understanding of the role of VSPs and the challenges they experience. the researcher also sought, from Weiss (2018), to learn more about the VSPs' level of innovativeness concerning whether a potential exists for digital divides to develop or increase between groups of students who are defined by issues such as income, education, and race in public K–12 virtual schools in Florida.

The Virtual Principal's Role and Leadership Challenges

Virtual principles face similar challenges as traditional leaders in brick-and-mortar buildings (e.g., funding, community, parents, staff, professional development, and time; Richardson et al., 2015). However, there are distinct differences in the challenges that-VSPs face. According to Gustafson (2019), the VSP requirements include six essential skills and six approaches to overcome challenges. The six essential approaches are (a) being open to new ideas with a focus on technologies, (b) taking positive risks, (c) staying flexible, (d) empowering staff, (e) serving stakeholders, and (f) communicating effectively (Gustafson, 2019). The list also includes "being a visionary leader, taking positive risks, learning from mistakes, staying mission-focused, trusting their followers, and empowering others" (Gustafson, 2019, p. 26). Other researchers have also found and recommended these challenges. Kayworth and Leidner (2002) noted that challenges including having a widespread team of members located far apart so that their total dependence on IT as a communication tool can prove difficult. The use of communication modes is perceived to affect VSPs' capability in communicating a social presence fundamental to face-to-face environments (Snellman, 2014). Eissa et al. (2012, as cited in Haley, 2018) found that the key difficulties were trust creation and preservation, distance and time-related issues, cultural gaps and diversity-related issues. and discovering new effective ways might help

with transforming said challenges into chances to advance. In addition, Oliver et al. (2010) suggested that the VSP needs to focus on educational leadership and instruction technology to provide policy reform, additional research, in-service professional development, and preservice training.

Furthermore, according to Salsberry (2010), VSPs find it difficult to translate some ways and solutions from the traditional brick-and-mortar setting. Difficulties for these leaders range from communication to school effectiveness. They also face challenges with the different approaches in curriculum and instruction compared to traditional brick-and-mortar school leaders (Beck et al. 2014). According to Lopez et al. (2013) and Smith (2015), technological tools are unprejudiced and command human involvement that varies throughout many populations. Weiss (2018) considered that innovation apparatuses are intended to encourage measures and can give individuals advantages and efficiencies, innovation can't be the single solution to the many divides (e.g., gaps in literacy, ability deficiencies, mental gaps, financials gaps) that exist among those that have and those groups who lack. (p. 1)

VSPs and leadership teams are also apprehensive concerning sustaining academic excellence with the online learning environment and the program's reputation (Nash, 2015; Nordin & Anthony, 2014; Hankey et al., 2015). The full-time and adjunct staff within the organization's virtual school commands have established policies to overcome variables that can cause feelings of disconnection from the institution and limited professional growth opportunities (Gamdi & Samarji, 2016).

The most vital challenge for VSPs is the integration of their individual lives with virtual environment demands (Mehtab et al., 2018). Virtual school teams can cover different time zones, which involves special procedures for a communication plan. The utmost

amount of work for staff is usually done at home and can be difficult when constructing a work–home life balance. The staff is in various geographic areas and encompasses different cultures, rules and regulations, and different business practices. These sorts of variables can and have created difficulties and complexities for VSPs. According to Mehtab et al. (2017), at the point when the virtual staff group is extended across widespread areas, the VSP needs to think about various techniques for correspondence and strategies to maintain the connection. According to Mehtab et al., the main purpose is to emphasize that leaders convey an attitude of togetherness in virtual settings and find the tools required for job performance to aid the virtual team members, which can then prove useful in staff retention. In addition, Lafrance and Beck (2014) noted that inaccessibility to tools to enrich performance has become common, and staff blame the VSPs' inability to offer the latest technology and tools to perform. Virtual environment technologies are constantly developing, and the need to change the hardware and software to remain competitive is increasing, which was especially difficult during the global pandemic (Weiss, 2018). Considering the various tools (e.g., the ISTE *Standards for Educators*, the International Association for K-12 Online Learning's (iNACOL; [2015] National Standards for Quality Online Courses, and Quality Matters rubrics), VSPs have guidance to support them in planning appropriate online learning to help with choosing and using ideal technological resources for student achievement (OCED, 2020). In the content found about the role of VSPs, one can easily see specific challenges and various ways in which these challenges influence the sustainability of online learning and the change process.

Inequalities are also prevalent in virtual schooling and accessibility among advantaged and disadvantaged individuals. According to Dolan (2016), since computers entered the field of education, the availability and ability to access technology for K–12

students have been problematic. Students face the impact of various limiting factors, including not only Internet connectivity, but also (a) poverty, (b) a lack of teacher preparation, (c) cultural miscommunications between students and teachers, (d) the availability of software, (e) students' and teachers' expertise and skill in using digital technology, and (f) the power of mobile technology (Dolan, 2016).

Access to technology and limiting factors affecting specific demographic populations connect the K–12 virtual schools' division. Rogers (2003) focused the DOI theory on the concept of innovativeness and the INP, which shows a role in social stratification concerns amongst varied socioeconomic individuals in a system (Weiss, 2018). K–12 virtual school facilities provide students with a more robust level of access to online coursework (Watson et al., 2015); however, other variables should be researched that could allow concrete data on the impact and success rate of these programs for all individuals in the virtual system.

Virtual School History

According to Kentnor (2015), virtual schools can be found as early as the 18th century: In the 1700s, when the editorials put ads promising to deliver lessons to people's homes, virtual kinds of educational environments were developed. The supply of instructional lessons by mail order persisted long into the 1800s, where adult learners requested different training resources and lessons in many subjects. (p. 22) The advancements over the last 300 years coincide with innovations in communications technology, and distance learning during the coronavirus pandemic continues to grow in popularity. Quickly growing K–12 virtual schools are outpacing researchers' ability to study the phenomenon and generate data, supporting best practices (Toppin & Toppin, 2016). As more innovation in education came about, educational practices that address the needs of

learners outpaced researchers as well. The 1980s brought about the instructional use of computers. Technical expansions added a prerequisite for academic organizations to include online education and effective online instructional strategies that would meet the learning needs of diverse student populations (Frazier & Palmer, 2015). Distance education at the elementary school level is not a new approach to instructional delivery, but it has received more attention over the past 2–3 years (Weiss, 2018). In many traditional brick-and-mortar schools, a new method of distance education is being integrated during the global coronavirus pandemic (Kentnor, 2015).

To successfully handle the wide range of students' needs, education preferences, effective and useful needs, and preparedness levels in today's virtual environments, differentiated instruction, which modifies the academic content, process, or learning environment, was developed as a new focus for distance education instruction in 2015 (Wilson & Conyers, 2015). Today's students are confronted with learning environments that will help them become increasingly aware and receptive to the broadening array of cultures, languages, experiences, and interests and VSPs have the responsibility of ensuring this happens (Tomlinson, 2015). Therefore, learning environments must meet students' needs and provide support to each learner's needs (Wenzlau, 2019). VSPs face issues with ensuring that the learning environments cater to all learning types and students' academic levels.

According to Toppin and Toppin (2016), the inception of distance instruction was founded on the idea that obtaining an education does not require face-to-face instruction or collaboration between the instructor and student. Lafrance and Beck (2014) determined that there are six major categories of virtual schools that are entirely online or the supplemental option of learning: (a) state-run virtual schools, (b) multidistrict virtual schools, (c) single-

district virtual schools, (4) consortium programs, (d) university programs, and (e) private and parochial virtual schools. Young (2017) considered that distance education continues to assume a significant function in the field of education in the United States, for it gives students more access and, in certain regards, a reasonable alternative to the traditional brick-and-mortar environment. According to Molnar et al. (2019), during 2018, virtual schools unrelentingly maintained the main theme of conversation for policymakers. Full-time virtual schools have seen much coverage as critics seek to make the argument that virtual schooling will increase pupil options and improve public education productivity (Molnar et al., 2019). The online curriculum can be personalized learning for students, furthering the effectiveness of the curriculum compared to the traditional classrooms and offering the potential for an increase in the level of student achievement compared to traditional brick-and-mortar schools. These assertions are unsupported by research evidence, yet administrators continue to make virtual schools financially appealing to both policymakers and for-profit providers (Molnar et al., 2019). As reported by Molnar et al. (2019), virtual schools continue to expand in number, with 501 full-time virtual schools enrolling 297,712 students in 2017–2018 and 300 blended schools enrolling 132,960. Between 2016–2017 and 2017–2018, students enrolled in virtual schools rose to more than 2,000, and an additional 16,000 students enrolled in blended learning institutions (Molnar et al., 2019). The educational statistics of 2019 also presented that virtual school enrollment had a significantly lower number of students from the subgroups of minority and low-income concerning the national public school enrollment numbers. However, Weiss (2018) found that, among virtual schools, a greater number of locale schools accomplished adequate state school execution evaluations (56.7% worth) than contract schools (40.8%). Weiss' case study also included discussion about more schools without education management organization (EMO)

inclusion (i.e., autonomous) performed well (59.3% satisfactory appraisals), contrasted and half adequate evaluations for schools worked by charitable EMOs and just 29.8% worthy appraisals for schools worked by revenue driven EMOs. The example among mixed-learning schools was compared with the best by area schools, and the most minimal execution by the subgroup of schools worked by revenue driven EMOs (Weiss, 2018). Watson et al. (2014) demonstrated that FLVS represents half of all course enrollments in all virtual state schools in the Nation. According to FLVS District (Public School Review, 2023), for the 2023 school year, six public schools are serving 13,480 students. Virtual schooling research on the Florida distance education programs is relatively new and, from this researcher's literature review, it has been expanding rapidly over the past 7 years. As Glass and Welner (2011) articulated, virtual schooling is no longer a novelty, but a movement that has become the fastest-growing alternative to public K–12 education. Yet, distance education is nothing new; it is a mode of education that has been around for more than a century (Simonson et al., 2019). Although the purpose of the virtual school has remained unchanged over time, the medium used to facilitate distance learning has expanded, assisting in the transformation of curriculum design, execution, and implementation (Simonson et al., 2019).

Florida Virtual Schools

According to Watson et al. (2014), Florida was the third state in the country to institute an Internet learning order, which was approved under the Advanced Adapting Now Act of 2011, referred to as Florida House Bill 7197. This requirement expected all entering ninth graders for the fall of 2011 and thereafter to take at any rate one online course in secondary school to meet graduation necessities (Advanced Adapting Now Act, 2011; Watson et al., 2014; Weiss, 2018). The law additionally specified that all open K–12 schools

in Florida give, in any event, one kind of Web learning system (e.g., a FLVS area level establishment, a local level online program, or a consortia program). Further, all open K–12 schools in Florida must furnish understudies with the option to pick at any rate at least one online course from the FLVS (Advanced Adapting Now Act, 2011; Watson et al., 2014; Weiss, 2018).

Florida maintains its status as a state that gives broad, full-time, and supplemental online course choices to all students across the state (Watson et al., 2014; Weiss, 2018). Nevertheless, Watson et al. (2014) perceived that, in the United States and in Florida particularly, more K–12 students are enrolling in full-time, traditional, government-funded schools than in full-time virtual schools. Moreover, a more noteworthy number of students (377,508) tried out supplemental online courses in the FLVS in 2012–2013 than selected (5,104) in full-time courses in the FLVS the same year (Watson et al., 2014). Recently, these statistics have changed to a total of 16,403 students enrolled fully in virtual schools ((National Center for Education Statistics, n.d.). In any case, since the hour of its commencement in 1997, the FLVS has served around 2 million course enlistments (Watson et al., 2014).

As the coronavirus pandemic grew, so did the numbers of online learning providers and enrollment as parents sought an alternative to chaotic remote school experiences in the spring semester 2020. Overall, in the last 2–3 years, FLVS's enrollment has increased more than half for online course offerings and full-time programs (Florida Department of Education [FLDOE], 2019). The number of students enrolled in nonprofit K12 Inc.'s online services for public schools has increased from 122,000 in fall 2019 to 170,000 a year later. Connections Academy, a Pearson-owned virtual school, has seen a 61% increase in applications.

According to Lieberman (2020), although exhaustive information probably will not be accessible until the fall, early signs propose that families are rushing to virtual schools in more prominent numbers than at any other time. Their favorable position is mostly one of life span: FLVS, the country's first statewide, online, government-funded school, was set up in 1997, and Connections Academy and K12 Inc., among different suppliers, have been offering full-time online guidance for a large part of the most recent 20 years (Lieberman, 2020). VSPs have seen an increased number of new enrollments this fall and have begun arranging support appropriately (Black et al., 2020). FLVS employed 320 new educators this mid-year and brought them together in person for professional development to extend the program capacity (Tawfik et al., 2021). The school has also postponed its July 2021 admission deadline by 1 week to allow parents additional time to consider where they wanted their children to attend school in fall 2021.

As a state-run, public organization that also licenses content to local districts worldwide, FLVS is reinforcing the areas' online endeavors by filling in as an option in contrast to its competitors (Lieberman, 2020). According to Tawfik et al. (2021), Representative Courtney Calfee stated, "We do feel a duty as the online pioneer in instruction to have the option to help different regions that might not have had a similar encounter." Representative Courtney Calfee is a ranking executive of accomplice administrations for the FLVS Worldwide School, which serves students around the world. Enrollment in the tuition-based schools run by K12 Inc. has likewise expanded lately, as indicated by Jeanna Pignatiello, the organization's senior vice president and chief academic officer (Tawfik et al., 2021).

Virtual School Success and Issues

Full-time virtual schools have gained a great deal of interest as supporters continue to contend that virtual schooling will increase student options and boost the quality of public education. Advocates claim that this individualization capacity helps virtual schools to foster higher student achievement than can be accomplished in conventional brick-and-mortar schools. Molnar et al. (2015, as cited in Barbour, 2017, and Weiss, 2018) found that, more than 20 years after the emergence of virtual schools, they continued to neglect longitudinal, empirical studies to direct the strategy and practice of virtual schools. Miron and Urschel (2012), Molnar et al. (2015), and Weiss (2018) discovered that virtual schools did not measure up to their level. It was an early promise for all American students to expand educational opportunities. However, NEPC's (as cited in Boninger, 2019) executive report scientists found that the research evidence does not support this argument.

Molnar et al. (2019) reported 501 full-time virtual schools enrolled 297,712 students in 2017–2018, and 300 blended school types 132,960. Virtual school enrollments have risen by more than 2,000 students and enrollment in blended learning between 2016–2017 and 2017–2018. During this same period, schools grew to more than 16,000, and 39 states had schools that were either interactive or mixed (Molnar et al., 2019). Four states approved the operation of integrated schools, but still did not allow full-time virtual schools to open. There are full-time virtual schools in six states, although they do not currently have full-time mixed learning schools. For-profit EMOs that run virtual schools were more than 4 times as high as other virtual colleges. A total of 1,345 students are enrolled in virtual schools operated by for-profit EMOs. According to Molnar et al. (2019) in comparison, those run by nonprofit EMOs enrolled an average of 344 students, and an average of 320 students were enrolled in independent virtual schools (not affiliated with an EMO).

Although only 34% of full-time virtual schools were operated by private (profit and nonprofit) EMOs, 64.4% of all virtual school students were enrolled in those schools. Although EMOs (private profit and nonprofit) only run 34% of virtual full-time EMOs, schools enrolled 64.4% of all virtual school students in those schools. Charter schools were just under half of all virtual schools (46.5%), but they were together. In addition, Charter schools accounted for 79.1% of the enrollment. Although districts have been producing an increasing number of online courses, they enrolled far fewer learners in their virtual schools. Although 32% of schools and for-profit EMOs were run by nonprofit EMOs in the blended market, 15.3% served blended schools and just over half (52.7%) were independent. Blended schools run by nonprofit EMOs were the most numerous, even though blended schools run by for-profit EMOs were the highest in size (772 students on average) per school. According to Molnar et al. (2019), more charter blended schools (62%) were accessible than district blended schools (38%), and their total enrollment was slightly higher (529) than district blended schools (303).

According to Kentnor (2015), although a collection of examinations on online training is developing, the field's advancement had disrupted before discoveries, and they presented new examination regions. Kentnor also implied an importance placed on examining and comprehending the movement and headways in instructive innovation and the assortment of techniques used to convey information to improve the nature of training that is given today. Chingos and Schwerdt (2014) ascertained that virtual schooling rapidly gained a foothold in K–12 education in the United States. In addition, Herold (2015) explained that the growth of virtual schools had grown drastically over the decade, in the number of schools and students enrolled. With the uprising effects of the coronavirus pandemic on education, there have been even more enrollment changes in virtual school

programs and online learning offerings in the traditional brick-and-mortar schools.

Supporters of virtual schools' attribute poor pupil achievement to the characteristics of many of the students who study in these schools (e.g., high mobility rates and failure in other educational settings; Watson et al., 2015). Those elements present accountability challenges, but few studies have dealt nationally with student performance in virtual schools. K–12 virtual school environments' effectiveness as an innovative method of providing academic instruction has come with a certain level of doubt from the traditional brick-and-mortar community. The increased power and ease of use with technology have directly proven virtual learning's effectiveness as a method and approach to providing educational content (Dempsey & Van Eck, 2012). "Online education is no longer a trend" (Wenzlau, 2019). Fifty states and Washington, D.C. offer online academic experience in K–12 education (National Forum on Educational Statistics, 2019). Allen and Seaman (2016) noticed that development rate from 2013 to 2014 for the number of students taking in any one class in the virtual environment was up 3.9% from the 3.7% pace of the earlier year. However, during the global pandemic there were 222 Florida Virtual Schools that reported an enrollment 293,717 students which was an increase from prior years (Florida Virtual School [FLVS], 2019). According to Black et al. (2020), the K–12 virtual school is not appropriate for all students or families. Individual students' success in the virtual environment, prerequisites requirements included being self-motivated, student-organized, and supported (Alves, 2017).

Fifteen states still have frozen transparent systems or new ones that do not offer an overall ranking. According to Molnar et al. (2019), in only 21 of the 39 states with virtual or hybrid schools did state agencies report overall school performance scores. Overall, only a small percentage of virtual and blended schools provided school performance ratings: In

states where school success assessments are available, 49% of virtual schools and 50% of mixed schools received no ratings. Furthermore, Molnar et al. (2019) found that, although many virtual and blended schools continue to display low success scores, the number of schools with satisfactory grades was higher than recorded in the previous year, although, 48.5% of the virtual schools with ratings achieved good performance ratings. Blended schools that participated with assessments resulted in 44.6% of the population earning satisfactory performance ratings (Molnar et al. 2019).

In its Executive Summary, the NEPC (as cited in Boninger et al., 2019) reported that, between virtual schools, many more district-operated schools have obtained adequate school performance scores (56.7% acceptable) relative to charter-operated schools (40.8%). More schools without EMO (i.e., independent) participation performed well (59.3% acceptable ratings), compared to 50% appropriate ratings for nonprofit-operated schools EMOs, and just 29.8% appropriate scores for-profit EMOs run schools. The trend among blended learning schools was similar with district schools having the highest performance and the subgroup of schools managed by profit-making EMOs having the lowest performance. For 290 full-time virtual schools and 144 blended schools, on-time graduation rate data was available. The graduation rate in virtual schools is 50.1% and in blended schools is 61.5%. These schools fall just short of the 84% national average.

Molnar et al. (2019) made the following recommendations for policy makers, from evidence found from unsatisfactory results reported by full-time, virtual and blended schools:

1. Slow or avoid the growth in the number and size of virtual and blended schools until the reasons for their low results have been explained, fully recognized, and discussed.

2. Decrease their student–teacher ratios and introduce steps that include virtual and blended schools addressing class size.
3. Enforce penalties for administrators, staff, teachers, and students who perform inadequately for virtual and blended schools.
4. Sponsor studies inside conventional public schools and districts on interactive and blended learning "programs" and instructional technologies (Molnar et al., 2019).

Consequently, the potential for virtual schools to succeed in comparison to their traditional brick-and-mortar counterparts will require addressing many areas, including the VSPs' approach to virtual school improvement plans.

Virtual School Principal's Responsibilities and Roles

The need to enhance the Nation's educational outcomes is a shared feature of both conventional and VSPs. In this chapter, the researcher explores the leadership, experience in virtual school administration, and the leadership skills of the virtual administrators who are responsible for governing these nontraditional learning communities. In the field of virtual school leadership, there is currently minimal study. VSPs' topics regarding their intent, virtual leadership, and communities and culture are discussed in this portion of the literature review.

Young (2017) investigated instructional supervision procedures in a conventional brick-and-mortar environment that could be translated into a virtual environment. To ensure a productive virtual school climate, Farley (2010) sought to identify performance standards and supervisory practices required. Glass (2009) examined school leadership problems (i.e., administrators and superintendents). In the virtual education report, Glass claimed that educational accreditation agencies or government agencies must avoid proprietary school

violations and be more vigorous in resolving online programs that lead to a high school diploma (Glass, 2009).

School leadership challenges include attendance, credit, the standard of instruction, and certification for seat time. According to Richardson et al. (2015), VSPs must realize that many teachers are transitioning from conventional classrooms to virtual teaching environments and might suffer opposition because of changing workloads and a shortage of technological and pedagogical assistance. Over the past decade, journal articles and studies have appeared concerning leadership in full-time virtual education.

Tucker (2014) aimed to investigate whether virtual K–12 leaders were the same as conventional K–12 leaders in brick-and-mortar schools. During the study, which addressed leadership in the virtual K–12 environment, Tucker discovered a minimal amount of literature on the subject. However, Stone (2014) expanded the virtual school leadership literature by presenting the projected need for administrative leader's capabilities and career training in K–12 online education. Sivy (2014) conducted a more comprehensive exploratory analysis of state-led VSPs across the United States by using semistructured interviews. Johnson-Lee (2015) addressed the knowledge, attitudes, and values associated with educational leadership. The VSP's position has changed through the years from a managerial position to that of an organizational leader. Jefferis (2015) maintained that, although leadership is significant, it is only one of the principal's responsibilities.

The ISTE (2014) prepared its *Technology in Education Standards* criteria that included five strands to guide an administrator of a virtual school in the management of their school. The fields strands are (a) innovative leadership, (b) learning and community of the modern age, (c) clinical practice, (d) institutional enhancement, and (e) digital citizenship. Strand 1, innovative leadership, involves the leader empowering all stakeholders

with a shared vision and engaging them. Strand 2, the learning community of the modern age, expects a leader to encourage technology and provide learning. In Strand 3, clinical practice, a leader is to cultivate a shared learning environment for workers. In Strand 4, institutional enhancement is used to examine how the leaders build the structure and manage it. In Strand 5, digital citizenship, leaders are sought to ensure that learners use the digital tools and services (Education, 2014). These standards have been adopted by many schools in the United States.

According to Seminole County Public Schools (2013), the VSP job description and responsibilities include the following skills:

1. Knowledge of current educational trends and research.
2. Skills in personnel management and supervision techniques.
3. Ability to prepare and manage assigned budget and allocated resources.
4. Ability to read, interpret and enforce the State Board rules, the Code of Ethics, School Board policies, and appropriate state and federal statutes.
5. Ability to use effective public speaking, interaction, and problem-solving skills.
6. Ability to communicate effectively orally and in writing same as above.
7. Ability to analyze and use data effectively in the decision-making process for both virtual schools and VSPs.

Tipple (2010) noted that VSPs have great importance to the online school, mainly in building an atmosphere in which adjunct faculty contributors are motivated to fulfill the desires and goals prescribed and have the skills and processes to address the demands of students. Just as instructors in the online world are prompted to be the “guide on the side” rather than the “sage on the stage” (Schrum & Levin, 2009, p. 40), Tipple (2010) believed the administrator’s function “also shifts to a coach and facilitator, as the online adjunct

member assumes gorgeous accountability in gratifying the dreams and vision of the institution" (p. 3). Tipple concluded that conversation is imperative for online academic administrators and that empathetic verbal communication comes entirely from an intuitive awareness of the emotions of another, invoking a sense of mutual bond and confidence. In addition, Tipple described high-quality evaluation and assessment for the online world as an area in which leaders act as role models, inspire others, and model innovation and imagination. Tipple concluded that evaluations provide for individualized concerns (support, motivation, and coaching to followers), which helps to close the gap between educational leaders and their followers as well as online adjunct professors. Although Tipple focused on adjunct faculty at postsecondary universities, it is also applicable to on-line education, especially in secondary digital schools (e.g., the case-study faculty at One Virtual High School (OVHS), which are part-time, similar to adjunct faculty. The literature helps to show how fundamental educational leadership is to the success of online environments. Molnar et al. (2019) and Saqlain et al. (2020) used the Delphi technique to gather stakeholder input related to the most urgent issues in online schooling in the future. According to Rice (2009), sturdy leadership is needed and recommended. This can be achieved by evaluating the sketch and implementation to identify great pedagogical activities and technical functions that contribute to positive success factors, transparency, and the creation of services that maximize student desires through expert development, accreditation, and expectations. Rice recommended that online schools need excellent leaders who are personally engaged in reviewing software, motivating teachers to give constructive input on assignments, and interacting with their students daily to render positive factors. Grissom et al. (2021) conducted student and teacher surveys of principals' effectiveness have shown that principals in traditional brick-and-mortar schools have had an

impact on student performance and achievement, despite the paucity of studies on the link connecting online administrators and student educational performance in their online programs. Waters et al. (2003) conducted a meta-analysis that was completed to find leadership skills related to student achievement and discovered 21 skills that directly affect student success because of the leadership displayed in that school (p. 4). Waters et al. found a correlation of .25 "between principals' management conduct and pupil achievement," which showed that principals might want to elevate their students' check scores, and ineffective principals would possibly see stagnation or decline in check ratings. Waters et al. and Williams et al. (2009) concluded: The first finding is that management matters. The regularly occurring impact of predominant management on student success correlates with 0.25. The capacity previously mentioned represents how instructors on average rated their leaders at the 84th percentile of management (one widespread deviation above the mean), student fulfillment was one tenth percentile factor higher on norm-referenced tests. Thus, the studies in the meta-analysis endorse that enhancing principals' management competencies via one trendy deviation from the 15th to the 84th percentile can lead to an increase in the average pupil fulfillment from the 50th to the 60th percentile—a widespread improvement.

Challenges

Kayworth and Leidner (2002) and Snellman (2014) claimed that global virtual teams face similar challenges as conventional teams, combined with challenges produced via team participants' dispersion and their huge or complete dependency on statistics technological know-how as a conversation media. Furthermore, Kayworth and Leidner (2002) and Snellman (2014) recommend the use of communication media because it was seen to influence the capability of VSPs to communicate social presence inherent in face-to-face

environments and to furnish nonverbal information (e.g., facial expressions, voice inflections, and gestures). Therefore, VPSs face diversified challenges. However, they might be able to flip these challenges into opportunities by being responsive. Henry (2020) discovered that formation and preservation problems, distance- and time-related problems**,** and troubles arising from cultural differences and variations are typically the most fundamental challenges. It was evident in Henry's study that the setting, especially the online context, affected the kinds of talents that effective leaders need. In Azukas' (2022) study, all of the leaders who had completed a regular education leadership program for certification were interviewed, and 100% of them felt that their program had not effectively prepared them for the responsibilities of virtual school leadership. VSPs also encounter network and connection issues when creating a professional community for staff and educators (Pollack, 2020).

Trust

A primary reason for this belief is the trust in staff members for meeting team expectations, using what they promise, an essential component of a digital team, for having faith goes beyond setting expectations and delivering outcomes that meet or exceed them (Cascio & Shurygailo, 2003; Snellman, 2014).

Online groups are typically formed for a goal or purpose with a set time constraint, which can cause issues when trying to increase cohesiveness and build internal workings, that require time to perfect (Dangmei, 2016). Empirical analyses shows that groups with perfect tiers of belief started their interactions with social messages; set clear roles for every team member; and confirmed practical attitudes and eagerness, enthusiasm, and an extreme action orientation in all their messages (Snellman, 2014). As a result, maintaining faith is linked to brotherly love and drive, considering that, in online job environments, motivation

arises from the group's level of cohesion, the level of confidence among team members, and the staff members' perception of their ability to handle the shared problems (Snellman, 2014). In addition, having confidence in virtual teams is a robust motivational factor rising from staff members' expectations that each member will fulfill the man or woman commitments and that the members will act with precise intentions and work hard on behalf of the team and, importantly, it is the accountability of the e-leader to construct trust and through doing so, extend the motivation of the team contributors confidence, which is predominantly facilitated with the aid of formal and informal, digital, conversational, technological know-how (e.g. tele-, audio-, data-, and video-conferencing) and is associated with coherence (Snellman, 2014), communication, and shared understanding, which are all vital issues for digital venture success (Idemudia et al., 2019).

Trust trust is very critical in virtual communities (Idemudia et al., 2019); therefore, it is crucial to discover what leadership-related characteristics, abilities, and behaviors will help create and sustain trust. According to Idemudia et al. (2019), vice presidents inspire team members to build confidence by using their actions or gestures. It appears that all leaders who (a) reduce complexity, (b) improve coherence, (c) set priorities that obligations will be met, (d) encourage collaborative activities develop successful local weather and dynamics to address collaborative challenges. Such behavioral patterns are known to boost confidence and minimize system losses (Idemudia et al., 2019).

Communication

Although the empirical literature on management in a virtual communication environment is still maturing (Snellman, 2014), outstanding resources from exploring the results of verbal exchange on virtual school teams and VSPs have been established. Seen from a wider perspective, a massive commonplace literature exists on how the

communication process should be made more environmentally friendly and positive (Makani & Blandford, 2016). The number, frequency, and precision of statistics exchanged are all derived from honest open-ended conversation (Delshammar, 2020). Berry (2012) defined communication as a mechanism for exchanging knowledge, context, and comprehension between two or more individuals, which the author claimed is necessary for any planning or work to be completed, for it provides the basic building blocks that people need to cooperate, make decisions, and function to achieve organizational goals. Communication in virtual groups varies from face-to-face communication because, in digital groups, conversation is usually determined by computer-mediated, asynchronous information and information diffusion that allows more than one issue of dialog to show up simultaneously from a couple of contributors. In contrast, synchronous face-to-face verbal exchange is determined by turn-taking where only one group member talks at a time (Makani & Blandford, 2016).

According to Purvanova and Bono, (2009) transformational leadership research for face-to-face verbal exchange is also most suitable for the following five reasons in laptop-mediated conversation; (a) nonverbal (i.e. visual) and para verbal (i.e. auditory) signals are more abundant in face-to-face conversation, (b) face-to-face communication reduces statistics failure caused by the use of multiple verbal exchange platforms at the same time, (c) face-to-face verbal communication maximizes physical presence and conversational participation, (d) face-to-face verbal exchange transmits knowledge about social status and social context, and (e) face-to-face contact is less mentally and cognitively exhausting than other forms of communication. According to Snellman (2014), the anonymity of electronic communication and the long distance between contributors causes virtual communication to lose social or contextual information (e.g., a member’s popularity or level of expertise).

Moreover, Gheni et al. (2015) claimed that verbal exchange across cultures presents VSPs with exceptional challenges, for a wonderful conversation across cultures requires sensitivity, trust-building capacity, and the capability to create and maintain desirable relationships.

The coordination of electronically mediated talks within teams might also result in issues with miscommunication, information dissemination, and expertise management. There is no physical touch in virtual conversation situations; therefore, e-leaders must learn new verbal exchange skills to increase socializing activities and a sense of community that encourage the incorporation of all individuals of the team. Hence, one of the key management challenges is to make certain that in-groups and out-groups, which might also be produced with the aid of certain employees' proximity to e-leaders, will no longer be fashioned (Snellman, 2014). The main undertaking for VSPs appears to reside in their ability to encourage especially group members to have mutual, lively, and continuous communication, which is to expand motivation and trust and, sooner or later, to lead to profitable team performance (Snellman, 2014).

Distance and Time

Distance is normally considered to be one of the key challenges that VSPs face while managing dispersed employees. Distance in working relationships can be (a) bodily when produced by geography, time sector, or organizational size; (b) operational when related to staff measurement regarding possibilities for conversation and face-to-face conferences; or (c) cultural by using one-of-a-kind values, prior familiarity, and reputation (Treece, 2020). In addition, Cummings (2011) and Lilian (2014) found that geographic distance and lack of overlapping work hours could also impose coordination burdens on group members, which was especially prevalent with e-leaders. Geographic dispersion of virtual staff contributors

which reduces the level of social support, usually in traditional face-to-face teams, challenges VSPs to respond rapidly to group requests if they desire to extend the feeling of social closeness (Snellman, 2014). Time-related challenges are upward pushing partly from the geographical distances meaning that the team individuals are typically working in specific time zones besides overlapping work hours; consequently, the special time zones impede simultaneous work (Lilian, 2014). Hence, VSPs are faced with severe troubles when coordinating duties inside digital teams. According to Snellman (2014) this is especially noted when VSPs undertake deadlines and time schedules are viewed as signifying mission and adversity for any team, for Snellman claimed that digital teams are mainly prone to such stressors because of their reliance with digital communication which increases the need to address rapidly the regularly rising problems.

Diversity

Variation in groups is commonly manifested by using such factors as a countrywide culture, geographic location, extraordinary conversation practices, and values. Diversity affects members' conduct and working practices and, hence, might complicate verbal exchange and identification methods and the execution of work (Efimov, 2020). As the virtual team members might characterize outstanding diversity, VSPs must graph explicit things to do to promote group building, reply to various competing demands, address the ambiguity of remote communication, and set up nonpublic relationships with special group individuals which, in turn, require the implementation of accessible, stable, and user-friendly science (Nunamaker et al., 2009). VSPs might also address diversity by (a) advertising a feeling of belonging, retaining the digital people engaged (Leonard, 2011); (b) studying how to take care of people from various cultures (Uber Crosse, 2002; Snellman, 2014), (c) advertising precise activities to enhance team building (Nunamaker et al. 2009),

and (d) adapting their language and messages to team contributors that represent distinct conversation traditions. As a result, it appears that the range calls for certain actions and watchful behavior from VSPs who aim to stop conflicting circumstances inside digital teams. However, since diversity can also give virtual teams a variety of viewpoints and working methods, strong VSPs might be able to use the appropriate management techniques and behaviors to turn diversity-related obstacles into opportunities. Vice presidents encourage belief by (a) their conduct and motions by setting common expectations, (b) improving group coherence, and (c) motivating and empowering members of the group, which might enhance group performance and corporate revenue production. Additionally, VSPs adjust their behavior and communications to the demands of leading a digital workforce by encouraging and inspiring staff members who are distributed throughout the globe. Through networking practices, which are known to enhance team harmony and a sense of community, vice presidents must involve active, reciprocal, and ongoing communication. These procedures can improve employee productivity and increase organizational costs. VSPs who actively reduce time-related stress, which is brought on by the strict deadlines and time constraints innate to digital strategic initiatives, who quickly address emerging issues, and who successfully coordinate team members' tasks across various time zones so that members of the team' knowledge and experience, talent, and expertise will be fully channeled, might also improve employee success and overall organizational value creation. VSPs who consider and enact diversity in virtual teams by (a) promoting team building, (b) responding to the precise desires of one-of-a-kind staff members, and (c) converting diversity-related challenges into opportunities can also enhance staff success and organizational fee creation (Han & Beyerlein, 2016).

Snellman (2014) researched the qualities of vice principals and noted the following

recommendations to combat their challenges:

1. Vice principals use their attitudes and activities to build consensus by creating shared goals, improving cohesion, and encouraging and empowering team members, all of which will help increase team performance and corporate value building. VS leaders who adapt their actions and communication to the needs of virtual teams by encouraging and empowering globally scattered team members to engage in active, cooperative, and continuous communication through socializing behaviors, which have been shown to improve team cohesion and feelings of togetherness, can improve team performance and organizational value development. (p. 353)
2. VPs who aggressively reduce time-related stress created by strict schedules and deadlines inherent in virtual projects, rapidly solve emerging problems, and efficiently organize team members' activities across time zones such that the team members' skills, talent, and competence are completely harnessed can increase team performance and organizational value development. (p. 355)
3. VPs that address the physical, operational as properly as cultural distance with the aid of reacting and responding rapidly to the precise distance-related wants of the geographically dispersed team members, through improving emotions of closeness, and by using actively making use of varied facts and communication technologies, might also contribute to successful digital teams. (p. 355)
4. VPs that consider and enact diversity in virtual teams by promoting team building, responding to the specific needs of different team members, learning how to deal with people from different cultures, and using the appropriate user-friendly technology to enhance closeness between the diverse team members,

> and, above all, converting diversity-related challenges into opportunities. (p. 356)

Digital Divide

Scott and McGuire (2017) showed that several issues affect digital divides. The integration of IT within education has changed society, particularly regarding who can access the services. Nevertheless, Steele (2019) voiced a further clarifying opinion that, although these individuals might have access to IT services, they do not have access to the same services to which others have access; therefore, this situation has caused a stratification in the world. Many people are considered fortunate and will access innovation and technologies, while the have-nots are aware of the same, but they revert to old ways and technologies (Steele, 2019). According to Steele (2019), a gap in access to these technologies affects education and causes a digital divide geographically and socioeconomically. This situation led to IT being presented within education, and prospects were high, but that, over time, the digital gap broadened quickly so that its impacts now seem to be clear (Weiss, 2018).

The present meaning of the term “digital divide” has lessened with a focus on one definition of access to technology—the dual view of the “haves” and “have-nots.” (Dolan, 2016). However, not all students have equal access to technology at home and school. The growing digital divide between underprivileged members of society (especially the poor and rural) and the affluent, middle-class, and young Americans living in urban and suburban areas who have access to the Internet is referred to as the digital divide (Rainie, 2015). Access to information and communication technologies is a broad topic that is comprised of the convenience of hardware, software, accessory equipment, and networking, as well as unrestricted access to dependable communication, including in the traditional school setting

(Steele, 2019). Digital disparities are apparent among societies, socioeconomic groups, less economically advanced countries, and between the educated and uneducated populations. According to Steele (2019), there are three types of digital divide: (a) the gender divide, (b) the social divide, and (c) the universal access divide.

Gender Divide

According to Steele (2019), although mobile connectivity is spreading drastically, it is not spreading equally. Women are still lagging. Men in low-income countries are 90% more likely to own a mobile phone than are women. This translates to 184 million women who lack access to mobile connectivity. Even among women who own mobile phones, 1.2 billion women in low- and mid-income countries have no access to the Internet (Steele, 2019).

Social Divide

According to Steele (2019), Internet access creates relationships and social circles among people with shared interests. Social media platforms such as Twitter and Facebook create online peer groups according to similar interests. More than ever Internet usage has influenced social stratification which is evident in societies among those that are connected to the Internet and those that are not. Nonconnected groups are sidelined because they do not share in the Internet benefits of the connected groups (Steele, 2019).

Universal Access Divide

According to Steele (2019), individuals who live with physical disabilities are often disadvantaged when it comes to accessing the Internet. They might have the necessary skills, but they cannot exploit the available hardware and software. Some parts of the world will remain segregated from the Internet and its vast potential

because of a lack of digital literacy skills, low education levels, and inadequate broadband infrastructure (Steele, 2019).

Factors Contributing to Digital Divides

Despite the expansion of the access to technology factor, Smith (2015) showed how individuals use hardware varies over gatherings. In the past, despite universal developments (e.g., radio and television), link systems offered little to connect unequal divides (Abascal et al., 2016). In this manner, current portrayals of the digital divide presently consider the contrasts between the individuals who are ready to use advanced substance to profit monetarily, politically, and instructively and the individuals who are not (Digital Divide Institute, 2015). The disparity with access to technology is prominent worldwide, and some of the contributing factors to the digital divide include the level of education, financial deficiency and poor substructures, exploitation, government, education, and technical support among others (Steele, 2019).

In healing the digital divide, education is a major investment and low levels of literacy skills deepen the digital disparity gap (Steele, 2019). In contrast, postsecondary degree holders are more likely to use the Internet and computers more fully in their daily lives compared to their less educated counterparts, who have obtained a high school education or lower. Income levels and financial stability gaps contribute to increasing the digital divide. Internet access is more prevalent among those whose income is regarded as being in the high range than it is among people who receive government assistance. The case is the same for families when compared.

More economically developing countries are wealthier; therefore, they have access to a wider range of infrastructure and high-speed Internet connections. Less developed countries lack the requisite resources and equipment to set up a high-speed Internet service.

According to Steele (2019), a portion of the world's population has the sufficient income, schooling, and computer literacy, but this population has little curiosity in learning about computers and the Internet's potential. It is considered by one party to be a privilege, while another party finds it too difficult even to grasp (Steele, 2019).

Geographical limitations broaden the digital divide. Inner-city metropolitan regions are likely to have access to 4G or fiber optic Internet more often than rural or mountainous zones (Anderson & Kumar, 2019). Access to intensive research for students from underdeveloped areas and countries is lacking and programs are theoretical in foundation, limiting access to innovative forms of instruction and practice. The limited range of knowledge available to such students is discouraging, and they often choose to stop taking courses or, if they do enroll, they perform poorly (Anderson & Kumar, 2019). Many activities, including assignments and the presentation of course content, are made available online, particularly during the worldwide COVID-19 pandemic. Regular brick-and-mortar K–12 schools around the world also use technology. Incorporating online learning options gives students who can access the Internet and have particular hardware inequitable advantages above those who have trouble with accessibility (Steele, 2019). With this disparity, the underprivileged will continue to lack crucial attainment of information from online instruction; therefore, they will exhibit gaps and poor performance.

Traditionally, the digital divide has been referred to in isolation without looking at the individuals' ability to use or understand the information accessed. According to Raja (2016), the digital use divide was viewed as the phenomenon of certain social–economic groups' lack of prerequisite skills in reading, writing, and computation, which halted their ability to operate the technology. In addition, Raja explained that the digital use divide was another area of emerging research that was addressed with the other inequitable variables

that might or might not be present in the virtual environment, hindering academic achievement across the online populace. Developed countries have more connectivity to laptops and other electronics, as well as high-speed broadband connections. Students who enter schools with enough computers and who learn the requisite technical skills have an advantage over students who are not introduced to these developments at a young age.

The disparity in access to technology, particularly in underdeveloped countries, amplifies the gap among information rich and information poor learners (Steele, 2019). Student participants and staff in virtual schools need to have access to certain technologies, among other requirements, to work towards academic success. Weiss (2018) discussed these requirements and digital divides problems along with imbalanced access to learning opportunities via K–12 virtual schools in Florida. A continuous shift has occurred in traditional schools with teachers adapting their classrooms to represent the connected world. They increase Web content and resources to enable efficient communication and timely feedback (iNACOL, 2015). The shift lends itself to more personalized learning experiences for students. Although the digital divide problem has been addressed at a certain level of exposure, variables still must be resolved (Talukdar & Gauri, 2011). The U.S. Department of Education (Thomas, 2016) *2016 National Education Technology Plan* addressed the digital use divide as the separation of students who use technology in ways that transform their learning from those who use the tools to complete the same activities. The digital use divide can be in all learning environment types and across poor and affluent schools and communities (Vickery, 2018). The *2016 NETP Education Plan* (Thomas, 2016) made progress with recommendations for the digital divide and use areas but mentioned that closing the digital divide alone would not transform learning. Bulman and Fairlie (2016) indicated directly and indirectly that the field of education would need to close the digital

use divide. Educational leaders and lawmakers need to ensure that all students comprehend how they can use technology as a tool to engage in innovative, useful, continuous learning, rather than passively consuming the content (Thomas, 2016).

Summary of the Literature

The purpose of this study is to investigate the roles and challenges of K–12 VSPs. A review of the available research literature described key features of virtual schools (history, success, and challenges) and discussed (a) the construct of innovativeness in Rogers's (2003) DOI theory in relation to the INP; (b) the VSP's role and leadership challenges, professional development for online learning; and (c) digital divides to establish the grounds for the current study. The researcher's intent in this study was to investigate the benefits of and barriers to public K–12 virtual schools as explained by VSPs. The theory to be tested in this study was whether innovativeness with the INP (Rogers, 2003) has the prospective to change basic social order issues (e.g., divides) amongst groups of students according to concerns such as income, education, and race in public virtual K–12 schools in Florida. Accordingly, this study was designed (a) to explore the VSPs' experiences and perspectives on the benefits of and barriers to public K–12 virtual schooling, (b) evaluate the VSPs' level of innovativeness, and (c) learn more about VSPs' ability to resolve challenges they face.

The focus of this research evaluation was (a) the effect of the VSPs' capacity to act as educational administrators in their schools, (b) the VSPs' position in traditional K–12 settings versus online settings, and (c) the difficulties that they face. However, no study outlines the responsibilities, abilities, and resources that K–12 VSPs believe are essential to their work. Therefore, in this review the researcher aims to fill the gap and provide insight into the real lived experiences of VSPs by using a phenomenological approach to gather the perspective of practicing VSPs. As VSPs negotiate their rapidly

changing world and mounting accountability to feature as instructional leaders, their voice is captured. It is difficult to confirm or deny arguments that VSPs' roles are the same as their counterparts in brick-and-mortar schools without hearing their voices. However, little research is available about the context or experience of VSPs, indicating the need for further study in this field. A summary of the development of higher education and public secondary education in the United States, as well as five current theoretical topics, will be addressed to build a quantitative map with which to examine VSPs' perspectives. This literature review led to one or more research questions for the study to gain a further understanding of VSP roles and challenges.

Research Questions

The following three research questions guided this qualitative instrumental case study and the development of interview questions:

Central Research Question 1: What do VSPs report as their experiences and challenges in their role in a K–12 virtual school?

Research Question 2: How do VSPs describe the digital divide and access to online learning?

Research Question 3: What skills, knowledge, and support do VSPs believe are necessary to be an effective instructional leader in the online environment?

Chapter 3: Methodology

Aim of the Study

The researcher's aim in this study was to determine the challenges that VSPs face and to define clearly how virtual principal leaders can lead in virtual schools, while addressing or finding solutions to the challenges of the digital divide.

The purpose of the study was to examine the role of VSP experiences and perspectives on the advantages of and interferences with K–12 participants and programs in Florida. The research approach for this qualitative case study pertains to K–12 VSPs. However, there is limited recent research on VSPs.

In this study, the researcher identified and explained VSPs' perceptions of their advantages and challenges. The research process included collecting data that was focused on how VSPs direct this growing virtual learning field. The researcher aimed to understand VSP roles, challenges, behaviors, and experiences, working within the online environment. In this case study, the researcher also addressed the digital divides, and digital use divides that currently exist in virtual schools, specifically regarding the ability to use hardware and not lack access. The researcher sought to discover and find or resolve for variables that hinder equity in virtual education for students of various backgrounds, socioeconomic status, academic abilities, and additional considerations as they might arise.

Qualitative Research Approach

This research included replication and expansion according to a case study using a qualitative method grounded on Weiss (2018) who studied virtual schools in Florida. Weiss provided research artifacts and permission for this researcher to expand on the study. In this study, the researcher also further investigated education equity and digital divides by administering the adopted Interview Protocol Guide (IPG) that had been previously used in

Weiss' study and expanded on the literature reviewed.

Furthermore, the researcher used the case study design. Creswell (2013) stated that, by employing this approach, the investigator explores a case within an actual present-day context or setting, which the researcher decided to restrict in time and place. The case study design was chosen because the study is existing and everyday cases that are in development; therefore, up-to-date data is collected, not lost by period (Creswell, 2013).

This case study is defined as follows: Qualitative analysis starts with hypotheses, a worldview, the potential use of a cognitive prism, and the study of research topics that examine the significance of a social or human dilemma ascribed to persons or communities (Creswell, 2007; Creswell & Creswell, 2018). Creswell and Creswell (2018) claimed that qualitative researchers employ a growing qualitative approach to science, which entails data collection in a natural setting responsive to the people and locations under study, and data interpretation—which is inductive and establishes trends or themes—to examine these concerns. Gary and Holmes (2020) explained that positionality is essential to the qualitative research process, for it is how one's identity and that of others is constantly changing, which affects one's outlook on the world. Gary and Holmes also noted that one should grow and accept one's positionality, for it inevitably shifts over time; therefore, beginning researchers should practice reflexivity. Different people have different ideas about what qualitative research is, but this researcher perceives it as a method of learning that begins with generalizations, an inferential view, and the investigation of issues to discover what people or groups think a cultural or social issue means.

This design approach was useful for evaluating theoretical models by using them in real-world situations. Therefore, in this case study, the researcher explored the role of VSPs' responsibilities and challenges in K–12 virtual schools. The case limitations (VSPs in public

K–12 traditional and virtual schools in South Florida) and the units of analysis (VSPs) set the stage for assessing the degree of innovativeness of the virtual school leader to discern the extent to which innovativeness existed in the case and to discover whether the VSPs' levels of innovativeness coincided with states of the INP (Rogers, 2003).

With this insight, the researcher designed the study to determine whether divides related to the INP have the potential to develop in public K–12 virtual schools. The researcher gathered research evidence within 1–2-month timespan to support, disprove, or refine aspects of Rogers' (2003) DOI theory and attaining equity in education by closing the digital divide. The researcher's intention was also to develop further the currently limited research on the roles and challenges of K–12 VSPs.

Participants

The participants in this study were from the Florida K–12 virtual and public schools, which include VSPs and leaders. The staff was comprised of a diverse population who have experience working and learning in a virtual K–12 learning environment. Individuals also included present employees in a traditional and virtual school setting in various southern state counties. These participants were chosen because of their knowledge and experience as a principals and leadership staff who have or have not operated in both traditional and virtual learning environments.

A literature search was conducted online in 2019 and in the Nova Southeastern University library to determine the probability of enlisting a qualifying quantity of purposeful sample for this case study. Data sources (FLDOE, 2019; Florida Virtual School, 2019) disclosed 75 public school districts in Florida. Additionally, each public school district offers virtual schooling programs (FLDOE, 2019). A list of public school administrators was found on the websites of FLVS and FLDOE. This list contained the

contact information for at least 27 VSPs in public K–12 virtual schools in Florida. From these findings, the case produced a purposeful sample of 27 VSPs in public K–12 virtual schools in Florida ($N = 27$) from which a target sample was drawn. Creswell and Creswell (2018) stated that a case study does not require a large sample size. Therefore, the target number of participants for recruitment purposes was 15. As in Weiss' (2018) case study, the researcher assumed that all VSPs in the purposeful sample might have not been accessible for study, for sampling contemplates an individual's willingness to participate in the investigation; therefore, the researcher planned to recruit the first 14 VSPs and leadership staff who authorized participation and did successfully obtain 15 participants.

The data collected were from fieldwork interviews via Microsoft Forms and Microsoft Teams or Zoom, the IPG, and the participants' completion of the Innovativeness Scale. The Web options for interviews and questionnaires were employed especially during the global pandemic to safeguard the success and accuracy of the data being collected. The researcher considered this form of data collection to have limits according to the participant's ability to navigate the platforms employed.

Data Collection and Instruments

An online questionnaire was used to determine the participant demographics (see Appendix A). This allowed the respondents easy online access and ensured that no cross-contamination occurred with paper use. The online format was also used to increase the effectiveness and accuracy of the data collection. Data collection tools incorporated in this study were interviews that included transcribed materials and recordings. In the interview protocol and guide (Appendix A), Dillman et al.'s (2014) design principles were used. This set of design principles can be applied to questionnaires. The principles were employed to establish an account for responding to open-ended questions in the form of a questionnaire

and the need to ensure compatibility across different platforms. Using Dillman et al.'s principles assisted in determining and evaluating the most appropriate questionnaire questions.

In addition, interesting interview questions were included that respondents would see as useful and easy to answer (Weiss, 2018). These tools also highlighted how participating in the case study and completing the forms would be useful to others, providing explanations of the protocol and questionnaire (Dillman et al., 2014). In addition to using a preexisting valid tool, the researcher included three additional raters to test interrater reliability when questioning the initial three participants. Along with additional raters, Weiss (2018) suggested adding a section to probe whether participants did not have a response to the question asked. The results showed consistency with information captured from those participants and the absence of additions or omissions that would negatively affect outcomes.

Fieldwork interviews were used to collect data. The interviews consisted of one-to-one video conference meetings in which the researcher used Microsoft Teams with the VSPs at their school site. The purpose of the Web meetings was to ensure compliance with Center for Disease Control (CDC) guidelines regarding the COVID-19 pandemic and to conduct fieldwork interviews to gather information for the case. The information obtained in the interviews was confidential and coded for themes and then converged in triangulation with data gathered from the Innovativeness Scale (Hurt et al., 1977) and demographic questionnaires (Appendix B). The next step was to use this time to build trust and connection with each participant. The participants were given interview questions preceding the interviews in preparation for the meeting.

Consent documents were given to the participating individuals, informing that their

involvement in the study would be voluntary and that they could withdraw from the study at any time. After the interviews, the researcher reviewed all of the follow-up procedures, including member checking (Creswell, 2007).

"Researchers can learn more about their subjects' backgrounds by including demographic questions in surveys" (Dobosh, 2017, p. __). These questions provide context for the collected survey data and allow investigators to specify their respondents and conduct more precise analysis of data (Dobosh, 2017). This case study also included background variables that the researcher believed were crucial to the study (e.g., years of experience leading traditional and virtual learning environments). Demographic questionnaires were used before conducting interviews. LeBlanc (2010) suggested that demographic data aids in establishing informative interviews and assists with the investigation breakdown.

This study followed King and Harrocks's recommendations by gathering the participants' demographic details. The demographic questionnaire was adapted from Weiss' (2018) case study, which was modified from two measures in the Mental Measurements Yearbook with Tests in Print: The Blackboard WebCT Questionnaire (Ituma, 2011a, 2011b) and the Computer-Mediated Communication Competency Questionnaire (Walther & Bunz, 2005). The demographic questionnaire was used to collect data on the participants' characteristics: gender, age, race or ethnicity, levels of educational attainment, and the number of career related job changes. The researcher employed this information to gain more information during the interviews and to help the case analysis (King & Harrocks, 2010).

A Microsoft Word and an Excel document were created to arrange collected data and to maintain a record of evidence. The structural features of the documents included

information such as (a) the participant's identifier code, (b) the participant's organization's code, and (c) the date that the data was documented and received. Additional columns were organized by statistics of the size of the school site, student enrollment numbers, and breakdown of other identifiable demographic subgroups.

Procedures

The procedures that were followed for collecting data were a series of steps. The study procedure began after approval from Nova Southeastern University Institutional Review Board (IRB). The researcher then sent a letter and consent form by email to the southern state local district where the study was conducted for site approval, after which the researcher received a preliminary response of approval. Following Creswell and Creswell (2018), the next step for recruitment purposes was to identify participants through purposeful sampling ($N = 30$) of VSPs in public K–12 virtual and traditional schools in the southern Florida area. Before the collection of consent forms, a letter soliciting participation was disseminated via email at the county level. The forms were collected from participants via outlook email (with directions to digitally sign and return the form to my email address). It took 3 months of resending emails, soliciting the study, to get enough participants to complete the study.

Next, the researcher emailed a detailed flyer that contained information about the study and its requirements to recruit participants. The researcher allowed 7 to 8 days for a response and confirmation of the emails. Thereafter, emails were sent to those who replied and did not gain an appropriate sample size. The participants who returned data were assigned an alias to provide anonymity and privacy (Creswell, 2013). The participants received the case study letter after the explanation notice and consent forms via email to review and to make an informed decision about whether to participate. Then digital consent

forms from each participant, which acknowledged their understanding and agreement to participate in the case study, were collected. Accordingly, the consent documents contained the participant's rights (to participate or withdraw at any time) and how their rights would be protected. Once the researcher had reached out, after 5 attempts, a total of 15 returned consent forms were successfully received by email.

Upon receiving and collecting the consent forms via email, a response email was sent to each participant with options to select an interview setting one-on-one (phone or virtual via Microsoft Teams or Zoom), tentative time, and possible date (Creswell, 2007). At that time, because of the state of the virtual option, exceptions were made according to the agreement for the participant to use a questionnaire via Microsoft Forms (questionnaire software), which allowed them to complete the forms within a reasonable time unhurried, whether asynchronous or complete, using a virtual live meeting (Appendix B). It was imperative that participants feel comfortable in the interview setting, which (in certain cases) was completed by affording them a few options to the interview process; this promoted trustworthiness, transparency of their experiences, and motivation to share those experiences with others (Creswell, 2008).

During the interview, the interviewer and interviewees used the interview protocol and guide that the researcher had developed (Creswell, 2008, 2013). The interview protocol and guide provided clarity of content and was focused on answering the research questions. Once the researcher had received and analyzed all of the contributors' submissions to the interview selection, a schedule for interviews was sent out via email document attachment to all of the participants for review and response approval via email.

Digital notes of the interviews were used to inform the participants of what information was collected during their interview. The participants were informed that digital notes

(Creswell, 2008) were taken during the interview, using either Microsoft Teams or Zoom recording, except for the Web interview (Microsoft Forms), which was completed individually by the participant using only IPG. Data instruments, including Microsoft Forms and IPG, were used to collect information help to ensure validity (Creswell, 2008). The Microsoft Forms records participants' typed responses, and the IPG contained vital procedural information before and during the interview process. At the end of each interview, all data were collected for review and safe storage in secure, digital, cloud-based files.

Upon the completion of the interviews, all data were thoroughly coded, reviewed, compared, and contrasted from all formats for accuracy and consistency of content. The compiling of data was shared and reviewed with the participants for the accuracy of their information recorded to ensure that the researchers materials captured the participants' responses according to their interviews. All responses were analyzed and coded for themes. The following steps and timeline were implemented with adjustments when warranted (Weiss 2018):

1. Obtain IRB approval to conduct this research. – 7 days.
2. Identify the purposeful sample (N = 30) of VSPs in public K–12.
3. Select virtual schools and possible participants in southern Florida for recruitment purposes.
4. Contact the purposeful sample for recruitment.
5. Narrow the purposeful sample (N = 30) to a target sample (N = 15) based on a willingness to participate in the study.
6. Record the sample group (N = 30) response rate (e.g., willing to participate, unwilling to participate, undecided, no response).

7. Select the target sample (N = 15).
8. Notify the participants of acceptance and update the roster of participants.
9. Obtain IRB permissions for sending forms to the participants.
10. Provide the participants with the informed consent document and the demographic questionnaire along with instructions, including the timeline for returning forms to me.
11. Obtain the informed consent documents and demographic questionnaires from the participants.
12. Analyze the participants' demographic questionnaires and record data.
13. Schedule the interviews and update the data according to the appointment date, appointment time, and fieldwork locations.
14. Plan time and fieldwork locations with participants.
15. Provide participants with a sample of the interview questions, the Innovativeness Scale, and instructions including information about the meeting to help them prepare.
16. Contact the participants via telephone before the interviews to develop trust.
17. Discuss potential questions, and request that the Innovativeness Scale be completed before the interview.
18. Using the date of interview, obtain participant's responses to the Innovativeness Scale prior to the interview.
19. Evaluate the participant's Innovativeness Scale and record the data.
20. Conduct the interviews with participants via Microsoft Teams or Zoom platform.
21. Data will be stored digitally, and password protected.

22. Inform participants that all data collected will be stored. According to the IRB requirements, all research collections will be kept securely for 36 months.
23. The researcher will take fieldwork notes during the interviews.
24. Review digital notes with participants immediately following the interview.
25. Provide the participants with their interview transcripts for member checking.
26. Obtain verification from participants that the interview transcripts are accurate and make changes if needed to ensure their confidence in the research findings.
27. Analyze and code the participants' interview transcripts for themes.
28. Triangulate the descriptive details that emerge from the participants' interviews and demographic questionnaires with the quantifiable evidence that emerged from the participants' Innovativeness Scale results to answer the research questions.

Data Analysis

Once the informed consent documents were collected, participants were called to schedule the fieldwork interviews. Upon the conclusion of interviews, collection of information and transcripts provided all recorded items to prospective participants for member checking. Member checking involves a method in which participants are afforded an opportunity to review data collection materials to verify their accuracy (Creswell 2007).

The participants checked documents for correctness and returned them to the researcher with any revisions until accurate. The data were collected, reviewed, and examined to identify any recurring themes or trends that might establish patterns of behaviors, perceptions, and challenges, and to identify strategies being used to assist with the occurrence of the digital divide and use in the virtual environment. The information and data collected were added to the case study database ongoing through the case study

process. The database software allowed the researcher to identify commonalities easily by running a find and highlight command for any duplicates in participants responses.

The analysis of the data was determined by the results of the collected interview protocol and questionnaire data that were analyzed, and any emerging themes were reviewed and categorized. The data from participants were summarized into convenient datasets for accurate tracking and fragmented into categories that generated themes. Following the member-checking processes, all recorded transcripts, memos, deliberations, and distinguished quotes were classified by the question and summarized. The data was read and reviewed to capture emergent themes. A constant comparison method was employed in analyzing the information collected. The researcher used apriori codes for cataloging, classifying, and reorganizing participants' interview records. According to Weiss (2018), the researcher cutback and processed the datasets, and established the open-coding procedures (Creswell, 2007) as described.

Next, the researcher analyzed and counted the participants' Innovativeness Scale outcomes. The participants' Innovativeness Scale scores were charted to identify the frequency and distribution of categorization according to Rogers (2003) and analyzed against normative group data obtained from Simonson (2000). Triangulation of datasets was employed in the final stage of the analysis.

Ethical Considerations

The researcher's study was a replicated case study modeled on Weiss (2018) and all possible ethical considerations, including but not limited to the following considerations that were identified:

1. The participants were provided with informed consent documents before conducting the study.

2. Informed consent documents were collected from the participants before conducting the study.
3. The participants were then advised that they had the right to withdraw from the study at any time.
4. The participants were provided with assurances of anonymity.
5. The participants were provided with assurances of confidentiality.

Trustworthiness

Debriefing activities after interviews, review of data, and any contact with participants were conducted to avoid deception and to provide transparency. Member-checking activities were then established to verify the accuracy of the data collection materials to ensure actual value and to yield trustworthy research findings. Member checking entailed a process in which participants were provided with data collection materials to verify their accuracy. Therefore, immediately following the interview, the interview notes' digital transcripts were retrieved, and the participant was provided their interview transcript for member checking. This information was added to the evidence of case study documents. Data were stored in a cloud-based file program that is a password-protected storage application. The participants were informed of how data collection materials were stored according to IRB requirements of storage duration.

Potential Research Bias

As an intern principal at a traditional elementary school offering blended learning classes to K–5 school students, the researcher's responsibilities included observing, supervising, and evaluating teachers and staff to further the school's vision of excellence. Along with overseeing class activities and assisting with instructional preparation, curriculum design, and educational practices, the researcher also helped to foster a learning

atmosphere for all children. Additional responsibilities included facilitating and acquiring professional development experiences for faculty to support academic advancement throughout the school, including technology integration of effective instructional practices. As an administrator of a hybrid model, and traditional brick-and-mortar school, the researcher has seen firsthand challenges that an administrator faces regarding innovation and distance education. With community institutions of education that include for-profit, charitable, online, and postsecondary school systems, leaders establish and preserve long-lasting, collaborations, which can be a challenge. Lastly, included in the researcher's duties are supervision of the daily operations of the school and addressing areas of needed improvement.

The coronavirus has caused significant shifts in the field of education regarding the accessibility of distance education. The researcher's own work-related experiences led to having an optimistic mindset about education and innovation. At this stage of the approval process yet to be included, the researcher was also thinking about other possible biases. It was imperative that the researcher avoid interview biases. The interviewee was not steered in any way in their responses. To clarify the participants' meanings, my interpretation was omitted, but instead clarification of their responses was conducted with them.

The interview questions were framed as open-ended questions to prevent the participants from agreeing or disagreeing with generic question types. Questions were direct in nature which allowed the participant to select from a range of potential choices rather than a "Yes" or "No" choice. If the answers given did not sound factual, the question was asked differently to assure the participant's understanding. To maintain participant engagement, questions were asked differently throughout the interview. The interview questions were not leading questions that could prompt the participant to respond favorably

according to assumptions. All of the participants were given the same amount of time and asked the same number of questions. After the interviews and questionnaire collection, all the data were obtained and analyzed with a clear and unbiased thought process. My constant focus was on avoiding assumptions. The reporting was precise rather than generalized relative to certain population segments.

Limitations

One limitation of this study was the lack of more recent research studies on the specific topic of VSP experiences. This limitation came from the inability to establish a quality literature review, which then could assist with forming the groundwork for better understanding the research problem being investigated. The other limitations included lack of time needed to complete and researcher biases.

Summary

This study's objective was to evaluate the influence of VSP experiences and perspectives on the benefits and obstacles for Florida participants in K–12 education. Finding updated defined roles and responsibilities of VSPs to add to the literature was another reason for this research. In this analysis, I also addressed the digital inequalities and digital usage disparities that occur in virtual classrooms, focusing on the capacity to use devices rather than lack of access. This investigation evaluated the relationship between education equality and digital divides by executing an interview methodology that was developed from Weiss (2018) and expanding on the reviewed literature. This qualitative inquiry began by looking at theories, available examples, the use of the DOI theory, and the examination of research subjects to investigate the relevance of a social or human challenges might be attributed to individuals or groups affected by the digital divide.

Chapter 4: Findings

Introduction

The goal of the qualitative study was to evaluate the position of VSP regarding experiences related to the benefits and drawbacks of participation in virtual programs and the virtual programs for students in Grades K–12 in Florida. In this chapter, the researcher presents the research findings and answers to the research questions posed. The chapter covers data about the research design sampling and results. The research on VSPs and their roles is limited.

The purpose of this qualitative case study design was to determine the experiences of the VSP, including how the VSP could work to improve equity in the digital divide for students involved in virtual school options. There is limited updated work on VSPs' roles and the challenges that they face in the position. This analysis was established to identify challenges and the level of innovativeness that VSPs possessed. The research was founded on Rogers' (2003) DOI theory to determine whether divides can develop or increase between groups of students according to income, education, and race (Scott & McGuire, 2017). The researcher expanded on the DOI theory to gain a better understanding and to identify the types of challenges that VSPs face that can help or hinder the implementation of a particular academic format or resource.

The authors of the available literature (Gustafson, 2019; Pringle, 2022; Toppin & Toppin, 2016; Weiss, 2018) highlighted that leaders in the school system tried to mitigate the digital divides; however, it resulted in widening them. This widening occurred because, according to Weiss (2018), the researchers' focus was on increasing available hard technology and access. In response to such issues, Rogers (2003) identified the INP, as a paradoxical phenomenon, and argued that it could exacerbate gaps between people from

higher and lower socioeconomic statuses in a system. Rogers explained that innovativeness, which is an underlying personality construct, can influence whether people in social systems adopt or reject innovations and can also predict the speed at which innovation is either adopted or rejected. As a result, Rogers' (2003) research pointed out that innovativeness plays a role in divides as they occur. The FLDOE (2020) indicated—not just in Florida, but also across the country, at the primary and secondary levels—that not all students take advantage of online courses or benefit from virtual schooling.

This researcher not only examined the VSP role, and the challenges that VSPs face, but also expanded on Weiss' (2018) to determine whether the innovativeness of VSPs had the potential to exacerbate societal structure problems between different student groups in Florida's public K–12 virtual schools. Researchers need to conduct more studies about VSPs and the efficiency of bridging the achievement gaps because of digital divides that occur each year.

Study Overview

The process that was used for this study was to provide descriptive data on how VSPs approach blended and virtual learning environments to promote student success. Through the literature review, the following four areas were identified (a) the VSPs' role and responsibilities, (b) the challenges that are blended and that VSPs face in their environments, (c) the elements that drive change in the leadership roles and responsibilities of a virtual school administrator, and (d) the way that leaders address the digital divide and equity in online access.

This researcher explored the VSPs in south Florida innovativeness using the DOI theory in association with the INP (Rogers, 2003). The DOI theory guided the study and was focused on two public problems: digital divides and unequal access to education.

The researcher started with information about sampling, then went on to describe the steps for gathering data and analyzing it (Creswell & Creswell, 2018). The data gained from the participants were summarized into manageable datasets for straightforward inspection and categorized into themes. Afterward, the participants' answers on the Innovativeness Scale (Weiss, 2018) were manually calculated. The participants' Innovativeness Scale scores were distributed according to the adopter categorization in Rogers (2003) and examined against normative group data obtained as explained in Simonson et al. (2019). The data were collected, using open-ended interviews with 15 VSPs; the researcher's field notes and reflective reactions, and a document review process. This study was guided by the following research questions:

Central Research Question 1: What do VSPs report as their experiences and challenges in their role in a K–12 virtual school?

Research Question 2: How do VSPs describe the digital divide and access to online learning?

Research Question 3: What skills, knowledge, and support do VSPs believe are necessary to be an effective instructional leader in the online environment?

The collection of data began in September 2021 and occurred over the 7 months after receiving IRB approval. Qualitative data collection research method was used.

Research Sites

The participants were solicited from school sites that were all in south Florida. School-based data were obtained from the district and state online databases. The sites ranged from traditional to virtual school settings, including those with blended learning. The student population sizes ranged from 400 to more than 1,000 students registered at the sites. The percentage of students who have taken advantage of virtual or blended course offerings

ranges from 20%–100%. Data points were obtained from the Internet and used to learn more about the school sites as they were related to the experiences and perceptions of the benefits of and barriers to public K–12 virtual schools in Florida.

Demographic Data

The data for this study were collected using individual interviews. Obtaining the 15 willing participants was difficult because of unanswered recruitment calls and emails. More than 20 emails and 30 calls were made. The sample represented in this study was K–12 public virtual and blended school administrators from Florida. Administrators who declined and accepted participation in the study mentioned that the timing of the research was an issue. Some administrators were hesitant to participate because the study was taking place during the district's preparation for the last year of Florida Standards Assessment and they assumed that this assessment would affect their availability for interviews, which could lead to a longer timeframe for data collection and analysis. If the participants could not find availability to participant until after the assessments were completed, that delay would prolong the researcher's ability to complete the study within a month.

In addition, the timing was the beginning of the school year and all of the administrators involved stated that they had more responsibilities to address at the onset of the school year. The participants were ensured that the timeframe to collect data would not interfere with their schedule or be time consuming. They were also given the option to complete data collection questionnaires on their own via Microsoft Forms. The participants consisted of administrators in 15 different public K–12 schools. The schools offered both virtual and blended learning options. Administrators explained that, since the pandemic, not many schools were still in the traditional brick-and-mortar function because so many had had to adapt to students learning from home for reasons related to COVID-19.

Participants had at least 5 years of work experience as school administrators. Of the 15 participants, nine were women and six were men. The participants ranged in age from 36 to 64 years. Table 1 presents a summary of the participants' demographics, which includes the following topics: (a) participants' professional titles, (b) school levels, (c) years of experience in brick-and-mortar settings, and (d) years of experience in virtual or blended settings in southern Florida schools. The Demographic Questionnaire that the researcher used was adapted from Weiss (2018).

Table 1

Participants Demographics

Characteristic	*n*
Gender	
Female	9
Male	6
Age	
36–44	6
45–54	7
55–64	2
Race/ethnicity	
Black	6
Hispanic	2
Other	1
White	5
Professional status: Current role	*n*
Principal	13
Assistant/Intern Principal	2
Professional status: Previous roles	*n*
Teacher (Gen Ed, ESE, Special Area)	15
Online instructor	5
Assistant principal	13
Distance learning coordinator	1
Department head	13
Instructional manager	1
Instructional leader	15
Course developer	2
Academic Area Coach	5

Note. *N* = Participants number of years for specific set of demographics.

Participant Code Summary

Participant identifier codes were created to maintain participant anonymity and to keep track of data sets (Calatrava, 2022). Each participant was assigned a code, which was used going forward for discussion purposes (see Table 2). The administrators in this study were all principals or assistant principals and shared various characteristics, educational backgrounds, and work proficiencies.

Table 2

Participants Setting Experiences by Years

Participant	Job title	Grades	Traditional experience	Virtual or blended experience
P1	Principal	9–12	18	10
P2	Principal	6–8	8	5
P3	Principal	6–8	5	5
P4	Principal	K–12	20	15
P5	Principal	K–5	10	10
P6	Principal	K–5	12	10
P7	Principal	6–12	22	12
P8	Principal	9–12	10	10
P9	Principal	9–12	15	10
P10	Principal	K–5	7	5
P11	Principal	PK–5	6	6
P12	Principal	K–5	3	3
P13	Principal	K–5	5	5
P14	Intern Principal	K–5	6	5
P15	Assistant Principal	6–12	8	8

Note. Participants number of years at school setting and current role. Based on results from Demographic Questionnaire Survey Results.

The participants' ethnicity and race varied and included both women and men. They all had obtained at least a master's degree, and some had a doctoral degree. The virtual administrators reported having some form of administrative leadership experience prior to the role that they currently hold. All 15 of the administrators had taught face-to-face, while only five administrators reported having online teaching experience. All of the participants worked in a public, K–12 school setting.

The demographic survey information returned ancillary aspects about the participants' educational and professional backgrounds that revealed trends towards high levels of innovativeness. This data was used in conjunction with the Innovativeness Scale results to test the theoretical assumptions of the DOI theory in relation to the defining characteristics of Rogers' (2003) adopter categories. The researcher compared each participant's Innovativeness Scale score to determine to what degree innovativeness existed in this study. The scale has 20 questions worded positively or negatively (Hurt et al., 1977). The scale score of all of the participants was collected and ranged from 69 to 118 to show each participant's level of innovativeness in the study. The higher the score the higher the level of innovativeness, and the lower the score the lower the level of innovativeness (Hurt et al., 1977).

Innovativeness Scale Results

In the DOI theory, the innovativeness construct (Rogers, 2003) is a fundamental personality construct that represents an individual's openness to change. The innovativeness concept is multidimensional in breadth, but the phrase encompasses ongoing behavioral patterns, cognition, and distinctive personal characteristics that pertain to how individuals respond to novelty. Innovativeness also includes the frequency about which individuals within socioeconomic groups adopt or reject an invention depending on the innovation's perceived novelty and the perceived benefit or drawback it provides (Rogers, 2003).

The Innovativeness Scale was established by Hurt et al. (1977). Scores can be translated to adopter category (Rogers, 2003). The tool has been used across disciplines for greater than 40 years to measure individual innovativeness. The Innovativeness Scale has 92% construct and prediction reliability. In this study, the Innovativeness Scale was used to measure individual innovativeness. Simonson (2000) identified normative group data that

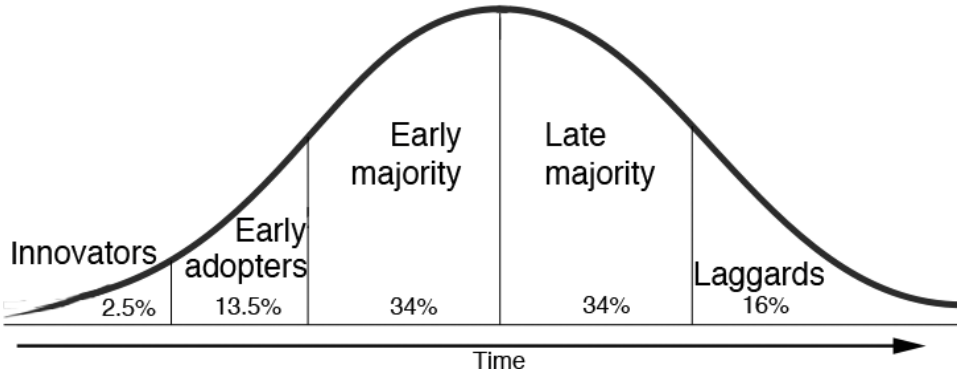
matched the parametrical requirements for normal distributions.

The early adopter (13.5%) group is more innovative than the late majority (34%) and laggard (16%) groups (Rogers, 2003). Early adopters are “often sought for by change agents to hasten the dissemination process” (Rogers, 2003, p. 283). They are related to other groups (innovators, early majority, late majority) and appreciated by peers. Early adopters generally are informed and cautious decisionmakers; therefore, they serve as examples (Rogers, 2003).

Rogers (2003) found that the early majority (34%) hesitate before changing. The early majority debates adopting new ideas. Early majorities are not the first or last to adopt advances in social systems. Laggards resist change. They doubt new ideas. They accept innovations last in social systems. Adopter classification frequency distribution. Figure 1 shows Rogers’ (2003) adopter categories and the innovativeness of five population sectors. The bell-shaped curve shows how innovativeness affects population distribution. Each adopter group is unique (Rogers, 2003). Late majorities (34%) and laggards (16%) are less innovative than innovators (2.5%) and early adopters (13.5%). Social systems have (2.5%) innovators. Rogers (2003) said this group showed the most innovativeness and openness to adapt in social structures. According to the DOI theory, this group is well-equipped for adversity and failures; they can absorb losses and are willing to take risks. An innovator understands technical information and can apply it to real-world, difficult problems (Rogers, 2003)

Figure

Bell Curve of Adoption of Innovation



Note. Created by J. E. Cook based on concepts in *Diffusion of Innovation* (5th ed.), by E. M. Rogers, 2003, New York, NY: Free Press. Used with permission.

Scale Scores

Before conducting interviews, 15 participants (*N*) completed the Innovativeness Scale. The 20-item inventory contained 12 positively phrased questions and eight negatively worded items (Hurt et al., 1977). Points varied from 1 (*strongly agree*) to 7 (*strongly disagree*) for each response item (4, 6, 7, 10, 13, 15, 17, and 30). Descriptive statistics from the scale (Hurt et al., 1977) demonstrate the case's innovativeness levels.

Simonson's (2000) normative group data was compared to Rogers' (2003) normal frequency distribution of adopter categorization to evaluate participants. Innovativeness scores were calculated using a 7-point Likert scale (Hurt et al., 1977). Higher scores indicated greater individual innovativeness, whereas lower scores indicated less (Hurt et al., 1977).

Descriptive Data Analysis

The lowest level of innovativeness on the innovativeness scale is 20, and the highest level is 140. Scores for participants varied from 69 to 118. The standard deviation was 15.1 and the mean score was 101.3. Individual participant innovativeness scores were distributed

as follows: 69, 81, 84, 93,97, 97, 98, 99, 109, 110, 111, 117, 118, 118, and 118. The median sample score (99) and mean sample score (101) did not significantly differ from one another. There was only one outlier in the case, according to the dispersion of these scores.

According to the parametrical assumptions for normal distributions, 68% of all scores should deviate from the mean by one standard deviation, while 95% should deviate by two standard deviations. However, the Innovativeness Scale scores of 60% of the individuals in the current study were one standard deviation outside of the mean. Additionally, the Innovativeness Scale scores of participants were only two standard deviations from the mean in 93% of cases, which showed that the parametric testing assumptions for normal distributions were not significantly higher (95%) than the level of data dispersion observed in the current study (93%). In conclusion, the findings indicated that the participant scores are on the Innovativeness Scale were nonnormal.

These statistics showed high levels of inventiveness in the situation despite these factors. The discrepancy between the sample's mean score (M = 101) and standard deviation (SD = 15.09) indicated that there was a substantial, positive correlation between participants' levels of innovativeness and the early majority group. If the DOI curve were used to map Innovativeness Scale scores (20–140 range) to it, innovators would have a score in the top 2.5%, or 137–140. The score range for early adopters is 121–136. 80–120 points would be the early majority.

The mean value (M = 101) was deducted from 140, the maximum possible Innovativeness Scale score, to discover the positive, significant link between participants' Innovativeness Scale scores and higher degrees of innovativeness. The standard deviation (SD = 15.09) was divided by the difference, which was 2.58. This calculation yielded an average variance of 2.58 between the mean sample score of participants and the highest

possible Innovativeness Scale score, indicating that the participants' mean sample score was 2–3 standard deviations below the highest possible Innovativeness Scale score or level of innovativeness.

The following methods were done to establish the negative, significant link findings between participant's Innovativeness Scale scores and the lowest level of innovativeness. The mean value (M = 101) was deducted from the lowest individual innovativeness score (20). The average difference between the mean score of participants and the lowest level of innovativeness was calculated by dividing the difference between these values, or 81, by the standard deviation (SD = 15.09). The final calculation of these data produced a value of 5.37, indicating that the participants' scale scores represented an average level of innovativeness in the present study that was 5 standard deviations away from the mean (M = 101).

The average degree of innovativeness in the case was found to be closely associated with both the lowest and greatest conceivable levels, according to an analysis of the variances in the standard deviations of the positive relationship analysis and the negative connection analysis. These statistics showed that the case displayed higher degrees of innovativeness.

Correlation With Normative Group

The subsequent step in the study was to compare the Innovativeness Scale scores of the participants to normative group data, which provided a validity test for normalcy. Consequently, the selected information from Simonson's (2000) research that fulfilled the specific statistical testing presumptions for the standard normal distribution, as it evidenced a large sample size that was a comparison group (e.g., a group of school principals) to the fifteen purposeful participants of the case in the research analysis.

The research began by reviewing studies (Hurt et al. 1977; Simonson, 2000) that provided Innovativeness Scale scoring results from large sample groups that satisfied parametrical testing assumptions for normal distributions. Table 3 demonstrates that the population sampled by Simonson (2000) displayed greater levels of creativity.

Table 3

Descriptive Statistics for Participant Scores on the Innovativeness Scale

Study	*N*	*M*	*SD*
Case Study	15	80.5	6.4
Simonson[a] (2000)	1,693	105	14.5
Hurt et al.[b] (1977)	672	102	14.0

Note. *N* = Participants, *M* = Mean, and *SD* = Standard Deviation. From [a]"Personal innovativeness, perceived organizational innovativeness, and computer anxiety: Updated scales," by M. Simonson, 2000, *Quarterly Review of Distance Education, 1*(1), 69–75. [b]"Scales for the measurement of innovativeness," by H. T. Hurt, K. Joseph, and C. Cooke, 1977, *Human Communication Research, 4*(1), 58–65.

Teachers 1 (*n* = 277), Teachers 2 (*n* = 376), chemistry teachers (*n* = 258), art teachers (*n* = 177), media specialists (*n* = 95), and principals (*n* = 99) were the professional roles for which Simonson's (2000) research supplied scoring data broken down by category. The demographics of the last group, principals, were comparable to those of the current study's sample (*N* = 15; principals *n* = 13, assistant principals *n* = 1, and intern principal *n* = 1).

The present study's normative assessment indicated that participants' results were not typical, particularly in relation to past research (Simonson, 2000). Even though the Simonson (2000) research had a greater mean score and standard deviation than that of the Hurt et al. (1977) group (see Table 3), the normalcy of the data was comparable. This early research (Hurt et al. 1977; Simonson, 2000) differs from the present study, which demonstrated positively skewed nonnormal distributions of participant Innovativeness Scale scoring data.

Discussion of Research Findings

The data evaluation for this chapter allowed the researcher to make specific conclusions regarding the participants' responses and the research available. From the transcribed qualitative data analysis of each research question, themes were established. Next, the thematic categories generated reflected the research questions and the theoretical framework that was discussed in Chapter 2. A qualitative procedure (Creswell, 2007) was used to report appropriately the assumptions, schemes, and analysis of the data and the process of governing a virtual learning community. The themes that were developed were used to explain the thought process and the attitudes that the participants exhibited.

Investigator-Adapted Interview

The interview protocol used to collect qualitative data from participants was an adapted, semistructured interview instrument (Appendix B; Weiss, 2018). The instrument was used to gather information on each participant according to their experience with virtual schooling and their barriers. The interviews were focused on obtaining the VSPs' points of view on innovativeness and the issue of the digital divide. Individual Innovativeness Scale questions were administered, and answers were manually calculated. The participants' Innovativeness Scale scores were compared to the normal frequency distribution of adopter categorization in Rogers (2003) and analyzed against normative group data that were obtained as described in Simonson (2000).

The IPG consisted of a 11-item inventory (Appendix A) to complete the study. The tool was used to elicit descriptive information from the VSPs about the benefits and challenges of public K–12 virtual schools in Florida. The additional information gathered pertained to the responsibilities that the administrators hold. The responses of participants were dissected for specifics that provided insight into the interaction of virtual schools,

digital divides, and the concept of innovativeness in DOI theory relative to the INP (Rogers, 2003). At the conclusion of the interviews, commonalities and differences were discovered in the data gathered from the various formats of interviews collected. The data were checked for accuracy and consistency of what participants detailed during their questioning. These data were then shared with the participants to ensure that accurate information was captured and that revisions were made as needed.

Themes

To understand virtual learning and its administrator's role, themes were analyzed and established. The main themes identified were (a) the role of the administrator, (b) duties and responsibilities, (c) characteristics, (d) challenges, and (e) implementing new ideas. The role of the VSP portion captured the following duties and responsibilities of an administrator: (a) taking care of organizational needs, (b) supervising faculty and staff, (c) recruiting faculty and students, (d) safety (traditional buildings), (e) implementing school policies and procedures, and (f) executing new ideas for the online platforms.

For many of the participants, the onset of the pandemic forced them to evaluate their virtual learning systems. The student population and learning environment determined what the administrators did and for what they were responsible. The VSPs stated that they faced many challenges and had ideas for improvement. These established themes were used to answer the research questions and to discuss demographic interview data (see Table 4).

Table 4

Themes Based on Participant Answers and Relationship to Questions

Theme	Research question	Frequency of participant responses
Role of administrator	1 & 3	15
Duties and responsibilities	1 & 3	15
Characteristics	1 & 3	13
Challenges	1 & 3	15
Implementation of new ideas	2	7

Note. Themes and number of participants whose answers included themed response was established according to the Interview Protocol adapted from *Virtual school leaders' experiences and perspectives of the benefits of and barriers to Kindergarten through Grade 12 virtual schools in Florida* [Doctoral dissertation, Nova Southeastern University], by E. Weiss, 2018.

Table 4 shows the themes that were associated with each research question. Research Questions 1 and 3 yielded all except one of the same themes. The initial four themes used to provide information on Research Question 1 were (a) role of the administrator, (b) duties and responsibilities, (c) characteristics, and (d) challenges.

Research Question 1

Central Research Question 1: What do VSPs report as their experiences and challenges in their role in a K–12 virtual school?

Although the research might have been limited, this study provided some insight to common responsibilities. Using the IPG Questions 2, 3, 8, and 9, the interviewees discussed the challenges and responsibilities that they faced. The participants provided information on what is involved in their position as a VSP. The job duties commonalities that were discovered through the responses involved overseeing the operation of a school entity whether traditional brick-and-mortar or fully online. Participants 1, 10, 11, and 12 stated that their responsibilities include shaping the educational direction of the school and establishing school policies and expectations for faculty and students. Participant 12 stated, "You may help hire teachers, monitor their performance, and facilitate professional development. As a member of the school administration, you also make decisions related to

the budget."

However, Participant 1 had an additional response, "Your responsibilities may include outreach to increase enrollment and encouraging parental involvement in their child's learning efforts. A virtual school principal is also responsible for ensuring that all online educational portals work effectively."

Overall, all of the participants pointed out that, in virtual schools, principals are responsible for the internal budget for all operations, academic and social–emotional needs of the students. In the traditional environments that offer virtual or blended learning opportunities, safety and instructional practices are overseen by the principal. Additional roles and responsibilities that were discussed during interviews included researching on professional and continued learning workshops to share with faculty and staff that assist them with effectively learning the curriculum and modifying their instructional practices.

Beck et al. (2015) detailed that one challenge for a VSP was "the authors found that the processes for building curriculum and creating a virtual infrastructure are both costly and time consuming." Participant 1's response encompassed what the other VSPs felt, which was,

> I've never felt more overwhelmed in my time as a school administrator. Together with my fellow administrators, I am confronting a challenging school year. Parents that are angry and anxious about their children are our problems. Although we feel unprepared to provide our teachers with all the support they require, they need our guidance. We must reevaluate every part of our educational day, considering COVID-19. It's challenging to run a school right now.

The VSPs mentioned some serious difficulties, two which were a high priority for everyone. Internal budgeting and gaining funding were two issues that school administrators

consistently faced, according to this case study and other research. In Gonzales' (2020) research, administrators stated that they "had issues with external funding to sustain the one-to-one laptop initiative; and negotiating and setting expectations or norms for one-to-one laptop instructional use" (p. 705). When probed for details, the participants attributed the budget issues to funding issues that were occurring at the district and state level because of the onset of the global COVID-19 pandemic. Al-Samarrai et al. (2020) stated that a significant factor in determining the quality of education offered by various schools, at all levels, including pre-universities, is the number of resources required to manage their activities. Having to experience budget constraints adds to challenges a VSP's experience when attempting to operate an effective institution of education. In addition to the funding crisis, this led to the challenge of VSPs facing staffing issues. VSP interviewees stated that cuts had to be made to staffing, which had a negative effect on the daily operation and the support available to the students.

Using the open-ended interview questions, 13 participants (87%) mentioned a variety of challenges that they face in traditional brick-and-mortar and virtual school settings. Participants 1, 2, and 6–11 experienced challenges in offering support and governance that would promote student performance and school effectiveness. This case study and Weiss' (2018) research findings indicated that most respondents viewed this challenge from a managerial standpoint, focusing on hiring choices and upholding professional performance standards that had an impact on student achievement, teacher success, and school success. Participant 1 stated,

> I have a natural love for technology and wanted to support my staff in making sure our students were prepared to be good citizens and technologically literate beings. However, with the staff lacking the skills sets necessary to meet students at the

> various levels of knowledge this is difficult. I find that I am looking to educate both staff and students.

The participants in the traditional brick-and-mortar buildings that offer virtual or blended learning also found it challenging to create a research-based curriculum that would facilitate achievement for all students. The participants pointed out that inequality occurs in course offerings and support, as compared to their traditional brick-and-mortar nonvirtual counterparts.

Participant 7 stated, “Some academic fields cannot be taught online. Some subjects are better discussed in person, usually the ones that call for practice. To get the best outcome, it is possible to combine both, nevertheless.”

Participant 13 stated, “Staff and students face difficulties such as now with new standards and assessment practices at the state level. The nature of the curriculum and working remotely, as well as managing an organization remotely proves tedious.”

Participant 15 stated,

> Virtual school intervention options are not well known or developed compared to our in-person counterparts. It is hard to intervene in a student’s academic career when they have other social, emotional, or physical difficulties when learning and teaching at a distance.

Online learning alters the roles of both staff and students, who must now adjust to a setting that is much more active and participatory. This teaching approach has gained popularity among younger generations because of its benefits. However, the VSPs stated that the environment comes with many challenges that they must face and try to remove each day.

Research Question 2

Research Question 2: How do VSPs describe the digital divide and access to online learning?

Students can access novel and interesting educational opportunities through virtual education, which allows them to transcend the conventional constraints of time and geography (e.g., how a school manager's position has changed, or a principal's role has transformed into one of an instructional leader). The participants seemed to be facing problems tied to the digital divide and the various student groups that they serve. All of the participants in this study had something to add to the conversation pertaining to the digital divide and how school administrators address the issue. Their responses during the interviews deliberated on what is lacking in availability of and access to the many virtual course offerings for all students.

Participant 12 stated, "Access to technology in the home and availability of technical support has been a challenge because of funding and availability of support."

Other participants' responses were similar in that they mentioned running into issues regarding having the staffing and equipment to assist those who had limited resources at home. When respondents were asked about the digital divide, Weiss (2018) saw the same responses as the issues in this study of access to not only technology, but also connectivity. One other response that was new to me was that of two participants who discussed being able to reach non-English-speaking students effectively and having the appropriate instructional modification to assist them with academic achievement. Using IPG Questions 6, 7, and 10, the interviewees discussed the digital divide and addressing access issues. Digital inequalities according to the VSPs were attributed to a lack of access to digital resources that are essential for online learning, student success, and virtual schooling

success (Weiss, 2018).

The participants' responses, similar to findings that the authors in the literature discussed regarding the digital divide, point to issues with access depending on socioeconomic status and inequality of digital literacy. In the interviews, the participants mentioned that students and their families had issues with (a) high monthly service rates, (b) a lack of computer skills, (c) ignorance of the benefits and usefulness of broadband, and (d) infrastructure availability as obstacles to effective home adoption. VSPs in this study indicated needs for (a) increasing student level of computer academic use, (b) established parent education implementation, and (c) availability of support as needed depending on home barriers. Participant 3 stated,

> We find it difficult to involve our families in the education process. Families are the foundation of what we do; they play a significant role in all of this, but despite all our labor to include them, it seems that they do not want to be bothered and for us to deal with educating their student solely on our own. They do not realize the important roles they play in their student failing or succeeding.

Participant 6 stated,

At the traditional nonvirtual school, so many of these children would not fit in. These children's needs are different from what we've seen in the past. They need our assistance. Although we are aware that we must do this for them, it still isn't simple because some have more access than others to the technological tools needed.

Deliberating over what the literature and this case study presented there are variables amongst socioeconomic groups that affect closing the digital and academic gaps that occur in virtual learning environments. All stakeholders, especially instructional leaders, must be made aware of the causes of the gaps to work toward ensuring that the inequality is

eliminated or lessened.

Research Question 3

> **Research Question 3:** What skills, knowledge, and support do VSPs believe are necessary to be an effective instructional leader in the online environment?

School administrators' roles and abilities have undergone a significant transformation because of the demands of successfully incorporating technology in classrooms. According to Alzoraiki et al. (2018), the leadership style of the principal has a significant impact on teachers' job satisfaction; hence, it is vital to give school administrators effective leadership skills to help instructors remain in their positions. Using the IPG questions, the interviewees responded that they have specific skills and expertise, the ability to be innovative, have the ability to collaborate, and are visible. The participants said that rapid technological evolution and emergence are commonplace. Contrary to a decades-long textbook adoption cycle, technologies are altering gradually over time and more dramatically over the course of months and years. Therefore, in a virtual setting, leadership is vulnerable to frequent and occasionally significant changes.

VSPs must learn to be equally agile and adaptable. Each of the 15 participants stressed that flexibility and quickness are essential qualities for principals and principal supervisors when making judgments on virtual learning. A few of the interviewees discussed how situational and flexible leadership is, and why educators ought to be aware of it. Project Tomorrow (2021) discovered that a VSP's responsibilities have expanded to include being a

> morale cheerleader for their staff, public relations manager for health and safety to the parent community, logistics and scheduling manager for new school formats, and

> the digital learning director at their school pushing the envelope in terms of the use of online resources and new learning modalities. (p. 1)

Participant 7 pointed out that any governing body of school technology advises that "school administrators must secure the necessary abilities to use technology effectively with instruction and curriculum in addition to learning how to integrate and transform information."

The selection of digital learning resources—physical resources that may be delivered to students at home, and pedagogical strategies that fully engage students through the meaningful use of technology—are requirements for virtual learning environments (Means et al., 2009). These resources, once acquired, must also include proactive professional development for the instructional staff to be effective in delivering the learning. VSPs are seen as the leading support for staff in using technology to advance the learning of students in the virtual environment. The participants stated that staff and other stakeholders look to them for new ideas and a way to collaborate on the topic of student learning and growth.

Summary of Findings

The data and information obtained pertained to the VSPs' approach to ensure that their learning environments that promote student success are still being developed. From the data obtained in this case study, VSPs face many challenges specifically the participants saw funding, staffing, curriculum, and professional development as major issues. The participants identified operational and instructional duties for which they are responsible every day, including equity to online access. As seen in the preexisting research, although innovativeness is an important attribute to have as a VSP there are other variables that assist in the effectiveness of a virtual institution of education. As in Weiss (2018), the present study had a significant sample of VSPs to assist in contributing to the DOI theory and

generalization of findings that could be applied to larger audiences. This qualitative case study confirmed possible solutions to digital divides and unequal access to education.

Chapter 5: Discussions

Introduction

In this chapter, the researcher provides an interpretation and discussion of the results of this qualitative case study and includes (a) an overview of the study, (b) a summary of the results of the study, (c) the implications and assumptions of the study, (d) the limitations of the study, (e) recommendations, and (f) conclusion.

Overview of Study

The purpose of the study was to obtain the role of VSPs, their experiences, and perspectives on the advantages of and interferences with K–12 participants and programs in Florida. The approach taken for this qualitative case study pertains to K–12 VSPs in traditional brick-and-mortar and virtual school settings. Additional secondary purposes of this study were to explore virtual learning and digital divide issues.

The literature review provided a foundation for gaining more information pertaining to virtual learning communities; however, the researcher was unable to obtain updated defined roles and duties of a virtual school administrator when achieving solutions to the digital divide. As the participants stated and observed over the last 2 years, virtual and blended learning has become an increasingly valuable factor in academic learning communities. Some participants of traditional learning sought new and innovative concepts of delivering learning to students because of the global pandemic and school temporary closures. Considering this, those who were already blended or at virtual sites also looked to make needed changes to address issues of access and equity for all learners during the global pandemic. Little was known about the roles and responsibilities of a virtual school principal at the onset of this study; therefore, the open-ended interview questions allowed the researcher a deeper dive into what current VSPs saw as their duties.

In addition to the role and responsibilities of a VSP, the researcher was seeking to find the challenges faced and the level of innovativeness of the individual participants. The researcher evaluated the VSPs' level of innovativeness with the INP (Rogers, 2003). The theoretical framework assessed during this study was whether innovativeness in association with the INP (Rogers, 2003) could fuel issues (e.g., divides) between groups of students in public K–12 virtual schools in southern Florida, specifically when addressing the digital divides.

Summary of Qualitative and Quantitative Results

The results of the demographic surveys, interview protocol, and innovativeness scale are reviewed in this chapter. Chapter 5 represents the discussion of the experiences of principals in virtual and blended public K–12 learning environments. The results reviewed in this chapter, the discussions throughout, and the in-depth analysis of the themes flushed out the following major themes: (a) role of administrator, (b) duties and responsibilities, (c) characteristics, ((d) challenges, and (e) implementing new. The goal of this chapter was to create a clear analysis of each theme and to integrate the meaning of the findings. From the demographic survey results, high educational attainment and an aptitude for innovation emerged early, and upward social mobility was also revealed. Several themes evolved from a review of the participant's interviews, including (a) lack of educational proactiveness, (b) lack of innovation in relation to virtual or blended learning opportunities, and (c) traditional school governance in a virtual setting.

These case study interviews generated topics that provided an increased understanding of the relationship of VSPs, digital divides, and the concept of innovativeness in DOI theory (Rogers, 2003). The initial topic resulted in discussions around the role of VSPs and their duties and responsibilities. The participants discussed proactive attempts to

maintain technological resources, while learning new standards and developing expectations for technological instructional practices.

Despite the insufficient literature on the duties and obligations of VSPs, this study shed some light on certain typical duties. The respondents talked about the difficulties and obligations that they confront. The participants gave details about the responsibilities of their role as VSPs in both virtual and blended learning schools. The interviews from this case study led to the discovery of common job responsibilities, including managing the staff of a school institution in the same manner as an administrator would a traditional brick-and-mortar location with entirely online programs. Researching professional and ongoing learning workshops to share with faculty and staff to help them effectively understand the curriculum and alter their instructional techniques was another function and responsibility that was covered during interviews.

An additional issue that VSPs cited as high priority was that school administrators frequently struggle with internal budgeting and securing funds. The difficulties that VSPs face in trying to run an efficient educational institution are exacerbated by budgetary restrictions. In addition to the funding crunch, this created a staffing problem for VSPs. According to the participants, staffing reductions were necessary, but they had a negative impact on how well students were supported daily. In such a case, \staff and students had to adapt to a setting that was much more active and participatory because of online learning, which changed their respective roles. Although virtual school is a preferred method of learning for the new generation of students the VSPs noted, the environment presents numerous difficulties that they must overcome every day.

As captured in literature on the digital divide and DOI theory, VSPs must understand that, according to the research, they should be aware of and focus on a discovered

socioeconomic track (Weiss, 2018). The participants in this case study were considered early adopters (53%) or innovators (47%) according to the definitions provided in Chapter 2. Only one participant was considered low in innovativeness as shown by the responses they provided on the innovativeness scale (Hurt et al.,1977). The high-level innovative VSPs worked to ensure that they provided students and staff with access and the technological resources needed to progress within the virtual environment. However, during the discussions, VSPs were still having difficulty with reaching all student groups and ensuring that the learning options and opportunities were equitable.

The findings from this study supported the notion that VSPs need professional growth and training. There is an abundance of literature on school leadership and virtual school communities, but there is a significant knowledge vacuum regarding virtual school administration. The following nine qualities are essential to lead successfully in a virtual learning community according to this researcher's study's findings: (a) demonstrates the capacity to drive student achievement within their learning community; (b) displays the capacity to work well in a diverse community; (c) collaborates and embraces various leadership styles; (d) demonstrates professional ethical behavior (e) project management and organizational skills to troubleshoot problems and create statistical reports related to the success and or challenges of their academic community; (f) is a motivator and self-starter; (g) is familiar with education reform and practices on the local, state, and national levels; (h) embraces change; (i) is dedicated to seeking professional development opportunities for growth in the area of school leadership; and (j) is committed to the high academic standards.

Study Limitations and Assumptions

There are thousands of virtual and blended learning programs all over the United States; however, virtual school administration is relatively young; therefore, the challenge of

reaching people who are only accessible online, and interviewing them during the period that was chosen (September–January), meant that only 15 of the 20 principals whom the researcher had asked to take part in the study actually responded, with five principals not responding at all. The results might not apply to all virtual learning programs because of the low response rate from administrators of virtual and blended learning schools.

Recommendations

Regarding future studies on the subject matter, researchers need to look to sample districts or statewide to obtain larger sample sizes that serve various student groups. As seen in the available literature, transforming virtual and traditional brick-and-mortar institutions into schools that yield more positive results require approaches that look to the effective help of student groups to close the digital and achievement gap. Collaboration with all stakeholders on what is occurring in the public, K–12 education system is another area of development that needs adjustment. Similar to Weiss (2018), this researcher discovered that there are more variables that cause divisions between our various student groups. When addressing the challenges and inequality in our virtual public schools one must consider the roles and responsibilities that these instructional leaders need to understand. Use of the additional information obtained can aid in further advancements of research on virtual leadership and efficient academic programs that support all staff and student groups. Researchers should look into topics of underprivileged student population supports and intervention that have yielded higher academic achievements and graduation rates to incorporate with future, virtual school, operational and instructional practices. These are all areas that can be investigated for future research.

Conclusion

In this case study, the researcher looked at the difficulties that VSPs encounter in

Florida K–12 public schools. Through semistructured interviews, the researcher investigated the obstacles experienced by 15 VSPs of totally online or blended online programs. Funding, personnel, accountability, time, parents, and professional development were the six primary issues identified in the analysis of available literature and the participants' responses. It was discovered that administrators in virtual schools have many of the same broad difficulties as leaders in traditional schools; however, the specific intricacies of the difficulties are different (Richardson et al., 2015).

To meet the expectations of these VSPs, instructional preparation, in-service continuing education, proposed changes, and extensive research are needed for the field of virtual educational leadership. The study's conclusions outlined the necessary abilities and methods used by VSPs to meet their leadership difficulties. Many traditional brick-and-mortar school administrators who hold totally online classes because of COVID-19 might find the study conclusions insightful (Gustafson & Haque 2022).

The struggle to amend the public education virtual system in Florida has been exacerbated by a slew of ingrained inconsistencies that subjugate both the intentions that underlie educational reforms (e.g., equality, equity, and justice) and the fundamental goal of education: to create informed citizens and a participatory populace that can engage equally on social, political, and economic levels (Weiss, 2018). Divides worsen social inequality and prevent full population involvement in the political, social, and economic spheres of democratic nations (Reynolds & Chiu, 2015). Divides also affect how well people can interact, communicate, engage, and function to benefit from opportunities at the economic, political, and educational levels (Ravi, 2012; Talukdar & Gauri, 2011).

This case study adds to the research literature on the VSP role in K–12 online learning as well as the information on the digital divide and diffusion research. As a result,

this case study contributes to both public awareness and knowledge of access difficulties experienced by VSPs in various public K–12 virtual schooling systems (Rogers, 2003). This study might aid future researchers on the challenges of VSPs and ways to close the digital divide, including supporting the underrepresented student groups in public K–12 virtual school systems in Florida or nationwide.

Summary

The objective of this study was to determine the leadership role and experiences of virtual schools administrators. This qualitative case study's methodology applies to K–12 VSPs in both traditional brick-and-mortar and virtual school environments. The value of virtual and blended learning has increased in academic learning communities. The case study interviews gave a deeper understanding of the connection between VSPs and digital divides, in addition to the idea of innovation in the DOI theory (Rogers, 2003). The interviews for this case study led to the finding of common work tasks, including staff management such as those of traditional brick-and-mortar sites with fully online programs.

The VSPs determined that staff cutbacks had a detrimental effect on the everyday support provided to children, including increasing gaps in digital use. Administrators of virtual schools require professional development and training to flourish in the digital age. Therefore, in this case study, the researcher examined the challenges faced by VSPs in Florida's K–12 public schools. The six key concerns found by researchers were funding, staff, accountability, time, parents, and professional development. Future research must focus on sample districts or the entire state to achieve bigger sample sizes that serve diverse student groups.

The battle to change the virtual public school system in Florida has been complicated by a plethora of engrained contradictions that undermine both the goals

underlying educational reforms and the core purpose of education. Other reasons that drive differences might be at work, and measures of least resistance alone might not be enough to overcome them. Issues of digital divide contribute to social disparities and impede full participation in democratic societies' activities. To get support for technology, particularly e-learning and virtual schools, principal university preparation programs will need to collaborate with local school districts, and state and national technology groups. This does not mean that local and national organizations are not currently teaching school officials how to reform schools and district administrators how to address digital inequalities across various student groups. Nevertheless, the researcher concludes that innovativeness in conjunction with the INP can fuel divisions between advantaged and disadvantaged pupils in some public K–12 virtual schools in Florida.

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Appendix A

Interview Protocol

Interview Protocol

1. What influenced your interest and involvement in public K–12 virtual schooling?
2. What are the most important functions of your current professional role, and which aspects of your work do you find most rewarding?
3. What were your early perceptions of K–12 online learning (e.g., prior to being a leader in the field), and have your perceptions of K–12 online learning changed over time, and if so, what events, situations, or circumstances did you encounter that influenced these changes?
4. What role, if any, do VSPs play in recruiting students for online courses?
5. Are there any strategies that are used in public K–12 virtual schools to limit or eliminate the digital divide or use challenges and if so, which strategies are you yielding the best results from?
6. Are there any particular recruiting strategies or recruiting trends that are used in public K–12 virtual schools to increase student enrollment in online courses, and if so, which approaches are you partial to and why?
7. Aside from Florida's virtual schooling mandate that requires students at the high school level to take online courses to meet graduation requirements, what are the drivers that motivate students to enroll in online courses?
8. When considering the typical demographic categories that are used for differentiating K–12 student populations in public schools, are there any identifiable similarities or differences between student groups with regard to the drivers that motivate online course enrollments, and if so, what are they?
9. Is there anything about K–12 online learning that you either have either disagreed with or challenged and if so, how did you proceed?
10. What are the current educational challenges that are affecting stakeholders (e.g., VSPs, teachers, students, parents) in public K–12 virtual schools?
11. If you could improve any aspect of K–12 online learning, what would you focus on and how would you go about implementing your idea?

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Appendix B

Demographic Questionnaire

Demographic Questionnaire

This self-administered questionnaire consists of a 6-item inventory with 5 forced-choice response items and 1 open-ended response item. The instrument is designed to collect demographic details on the respondent's personal characteristics that focus on professional status, educational attainment, gender, age, and race/ethnicity. These details will be used to help the researcher identify factors that might influence the experiences and perceptions of case participants.

All questionnaire data will be stored in the case study database that is password protected. No identifiable information will be made available to anyone other than the researcher. An identifier code will be assigned to the data collection materials to protect the respondent's anonymity, confidentiality, and privacy.

Each response item begins with a demographic feature that is meant to help the researcher organize the data collection results into categories. Response items are addressed by selecting the field next to the response that best describes the respondent, by reporting the numerical value in the field that best describes the respondent, or by listing brief details in a short answer field.

1. Professional Status: Please fill in the response item to indicate your current job title, the number of years you have worked in your current professional role, and the number of career related job changes you have experienced in the past 5 years.

   _____ Current job title
   _____ Number of years in the present professional role
   _____ Number of career related job changes in the past 5 years.

2. Professional Status: Please list your previous professional experiences (e.g., job roles) in the field of education both virtual and traditional environments, and if applicable, please list any previous professional experiences outside the field of education.

3. Educational Attainment: Please check the response item that describes the highest educational degree you have completed as of today's date.
    - High School
    - Associates Degree
    - Bachelor's Degree
    - Master's Degree
    - Doctorate Degree

4. Gender: Please place a check mark next to the response item that describes your gender.
    - Male
    - Female

5. Age: Please place a check mark next to the response item that describes your age group.
    - Less than 26 years
    - 26–35 years
    - 36–44 years
    - 45–54 years
    - 55–64 years
    - 65–74 years
    - More than 75 years

6. Race/Ethnicity: Please place a check mark next to the response item(s) that describes your race/ethnicity.
    - Asian/Pacific Islander
    - Black or African American
    - Hispanic or Latino
    - Native American or American India
    - White
    - Other / Please fill in the blank if applicable.

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