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Public School Superintendents in Virginia: Innovating in the Educational Context

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PUBLIC SCHOOL SUPERINTENDENTS IN VIRGINIA:
INNOVATING IN THE EDUCATIONAL CONTEXT

by

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ABSTRACT

PUBLIC SCHOOL SUPERINTENDENTS IN VIRGINIA: INNOVATING IN THE EDUCATIONAL CONTEXT

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This research study, using institutional theory as a framework, examines the role of superintendents in promoting and impacting innovation in Virginia's public schools. The study engaged fourteen current Virginia superintendents in semi-structured interviews, exploring their perspectives on fostering an innovative culture within their school districts. Three primary themes emerged from the research: defining innovation, the role of superintendents in leading innovation, and the challenges and barriers to innovation. Generally, the findings highlight that innovation fundamentally involves thinking differently, finding creative solutions, and bringing about meaningful organizational improvements. The study emphasizes that innovation is essential for adapting to the evolving needs of students and the educational system. Furthermore, the research reveals that superintendents play a crucial role in promoting innovation within their schools and face various challenges and barriers in this effort. The research has important implications for school leaders and policymakers who seek to drive innovation in public schools, as the study provides valuable insights into superintendents' perceptions, experiences, and motivations regarding innovation in public education.

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I would like to dedicate this dissertation to all who supported me on the journey. This journey was a start and stop marathon, a lengthy one at that!

To my wife, Amber, I say thank you. Thank you for your unwavering support in this incredibly long journey. You've always been my strongest supporter and will always be my best friend. To our children, Minor and Finley, thank you for your patience, encouragement, and understanding. I am excited this will be behind us.

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CHAPTER 1: INTRODUCTION

America's K–12 educational system is designed to provide every student with learning experiences that lead to acquiring knowledge and skills to have options for various employment scenarios beyond high school graduation (U.S. Department of Education, n.d.). Political, economic, and social changes—including advances in technology—create unique educational needs that are ever-evolving. Though societal and community needs and demands today are different than in the past, public schools have attempted to adapt to the changing needs through the introduction of educational reforms (Cuban, 2013). These reform efforts often attempt to change the status quo of the public-school institution (Cuban, 2013).

This research study investigates how public school superintendents support and facilitate innovation in school systems to drive change. The study of these leaders and their ability to foster innovation is crucial and timely, given that educational institutions nationally and globally are placing increased emphasis on enhancing student outcomes, fostering creativity, and educating the next generation for the workforce and global economy. Equipping public schools with the ability to foster innovation and dynamically pivot to meet challenges is essential because doing so increases the likelihood that the school system will be able to achieve their educational goals (Peterson, 2009). School divisions can enhance teaching, training, evaluation, professional development, and community involvement through innovative practices (Fernández-Batanero et al., 2022). More specifically, these innovations aid schools in addressing the difficulties presented through societal challenges such as poverty, international competition, and the digital divide.

It is essential for superintendents of public school divisions to encourage and nurture innovation. The appointed or elected school board drives the overall educational policies and

goals of a school system. Operationalizing these goals is directed by the superintendent, who serves as the district's chief educational leader and chief executive officer. Superintendents can assist their divisions in raising student performance, remaining competitive, and better serving their communities through cutting-edge practices and innovations.

The Commonwealth of Virginia, recognizing that traditional school structures and practices were inadequate to support the development of the knowledge and skills required of the 21st century workforce, established administrative measures to foster a climate of innovation statewide (VDOE, 2015). Governor Terry McAuliffe stated, “Innovation is essential in building the kind of education system we need to meet the demands of the New Virginia economy” (VDOE, 2015, p.1). Evidence supporting the climate of innovation in Virginia includes state-funded innovation grants, the development of the Profile of a Virginia Graduate, and the development of an innovation network (VDOE, 2015, 2016, 2019). Virginia school divisions, through specific innovation grants, have been empowered to develop their own individualized programs without some of the restrictions traditionally imposed through regulations (VDOE, 2015). Approved school-division grants focused on innovative, nontraditional instructional approaches, real-world connections, and career awareness (VDOE, 2015). In 2016, the Profile of a Virginia Graduate was created (VDOE, 2016). The profile highlighted the core competencies believed to be necessary for students to be “life ready” (VDOE, 2016). In 2019, a statewide innovation network initiative was developed through partnerships between the Virginia Department of Education, education innovators, and university and private partnerships (VDOE, 2019). The innovation network, Virginia is for Learners Innovation Network (VaLIN), sought to assist school divisions in designing and implementing innovations aligned to the Profile of a Virginia Graduate (Advanced Learning Partnerships, 2018). The culture of innovation within the

Commonwealth provides Virginia students multiple pathways, including internships, externships, and credentialing, toward college and career readiness (VDOE, 2016).

Students graduating need new and varied skills to solve societal problems resulting from globalization (Boix Mansilla & Jackson, 2013). Jobs requiring standardization and rote activities are fulfilled by technological innovations at low costs (Boix Mansilla & Jackson, 2013). Demand has increased for workers with the ability to think creatively and with complexity (Boix Mansilla & Jackson, 2013). Even though accountability and reform efforts have resulted in the shifting of practices, school division and state policy leaders continue to explore and implement innovative initiatives aimed at challenging the status quo (VDOE, 2019). Yet, there is a gap in research that examines how these innovations are implemented in the face of systemic and societal pressures.

This dissertation is vital for several reasons. It will provide school division leaders with insights on how to foster an atmosphere that encourages innovative capacity. Additionally, it will help to clarify how superintendents can encourage an innovative environment in their communities. Finally, this study will provide policymakers and educators with practical strategies that can be used to promote innovation in their school contexts.

Statement of the Problem

Schools are the cornerstone of society and are crucial to the growth of young people. The success of a school is primarily influenced by the teachers and administration. Superintendents of public school systems are tasked with the overall leadership of the education system in the community. In this role, the superintendent is responsible for ensuring students obtain an excellent education, the finances of the division are managed skillfully, and the system meets the state and federal standards. Being responsible for driving innovation in their educational systems has made the superintendent's job more complicated in recent years. Innovation is a term that has

been used increasingly in the education sector, yet there is no clear consensus on what it means or how it is defined. For many, innovation is simply a way of doing things differently or more efficiently (Owen & Pansera, 2019). However, there is much more to it than simply changing the way things are done. It involves a process of challenging norms, rethinking approaches, and embracing change. A superintendent must be ready to take the initiative and support new concepts for a school system to benefit from innovation in the truest sense.

It is crucial to first consider what motivates innovation in education to comprehend the superintendent's role in fostering it. In addition, it is critical to understand the characteristics and facets of innovation to understand the superintendent's role in leading it. These characteristics and facets include creativity, collaboration, risk-taking, and sustainability. They must be able to articulate the value of innovation to their staff, stakeholders, and the community at large.

For a deeper understanding, it is essential to look at the superintendent's position in leading innovation in public educational systems, and the factors that fuel innovation in education—its traits and facets, and the steps required to create a culture of innovation.

Purpose of the Study

Innovation is a concept that has gained attention in education in recent years. It can range from creating new products, services, or processes to developing new strategies and approaches to existing problems (Alnuaimi et al., 2021). It is also closely associated with creative thinking, as it involves inventing creative solutions to a given problem. Innovation has been discussed in the context of numerous fields, including business, education, and technology. The process of presenting novel goods or services to the market is frequently referred to in business as innovation. It is frequently used in education to refer to novel methods of instruction and learning, including the use of technology, integrated learning, and flipped classrooms.

Innovation in education is a difficult idea to grasp. It has a lot in common with the notion of school improvement, which is characterized as the process of bringing about adjustments to raise student success. Innovation, however, includes producing something new or unique in addition to simply adjusting. It is frequently viewed as a method to test the limits of what is already recognized and to develop new solutions to existing problems. Innovation in education can take many forms. It can involve creating new approaches to curriculum design, developing new technologies for learning, or introducing new ways of assessing student learning (Wu & Chen, 2021). It can also involve creating new programs, initiatives, or strategies for dealing with existing problems.

School leaders, such as superintendents, are often the drivers of innovation in education. They lead school divisions and are able to foster an atmosphere that encourages innovative methods to solve problems and challenges. They can promote invention by establishing standards, offering tools, and fostering original thought. Innovation in education is an important concept, as it can positively impact student learning and achievement (Temkin & Brown, 1974). It is vital for leaders to understand the concepts of innovation and recognize how it can be nurtured in their school divisions.

Research Questions

1. How do school superintendents define innovation?
2. How do public school superintendents foster innovation in their school districts?
3. Are there specific steps in building an innovative culture?

Research Rationale

Schools are integral in the establishment of individuals as they progress through life, and the role of school superintendents is critical in ensuring that schools are providing the best

possible educational experiences for students. These individuals are tasked with leading the way in driving innovation in their school divisions, which can be an extremely difficult task given the complexity of the educational system. This dissertation aims to explore how superintendents lead innovation in their school divisions and what the drivers for innovation in education include. The need for innovation in education is paramount for a successful future. It is crucial that pupils have the information, skills, and aptitudes necessary to function in a society that is constantly changing.

Although it is not a brand-new idea in education, many recent changes have placed a strong emphasis on innovation. It is crucial to remember that innovation is not just limited to technology but also to processes, services, and educational outcomes. Despite the reality that innovation has many different meanings, research has shown that certain characteristics and aspects can be identified.

Understanding the forces that drive innovation in education is crucial to understanding how superintendents steer innovation in their respective school districts. According to research, the need for better student results, increased speed and efficacy, and increased cooperation between teachers, managers, and other stakeholders are the main forces behind innovation in education. A culture of learning and innovation, a common vision and dedication to innovation, and a clear execution strategy are additional traits of an innovative school systems according to studies.

This dissertation investigated how superintendents describe innovation and what actions they take to foster innovation and a learning atmosphere to further explore the subject of innovation in education. It will also look at the worth of innovation to superintendents and how they gauge the success of their own innovative projects. Pedagogical policy and practice can be

guided by the study's results, which will result in a deeper comprehension of the superintendents' responsibilities for stimulating innovation in their leadership work.

Background on Innovation and Superintendents

Drivers of Innovation

Innovation has become a significant part of the educational setting as schools work to address the changing technical and social environments. It is frequently viewed as a means of enhancing student learning through the incorporation of new concepts, procedures, and strategies. To satisfy the requirements of their institutions and communities, superintendents must find and employ cutting-edge ideas and strategies.

The need to adapt to ever-changing surroundings is one of the main drivers behind innovation in education. Because of the quick development of technology, the increase of international rivalries, and the intricacy of the issues facing the world, schools must continuously change to remain pertinent and competitive. The use of new tools in the classroom, from virtual reality and augmented reality to interactive whiteboards has improved student learning (Sarkar & Pillai, 2019). These tools facilitate more interactive and participatory activities, simplify the explanation of complicated concepts, and give students access to a broader variety of resources. To ensure that all students are getting a high-quality education, schools must continuously adapt the way they educate and how they assess student learning as the educational landscape changes. This factor is particularly crucial for students from underprivileged backgrounds who lack access to the same opportunities and resources as their classmates. To satisfy the requirements of a student body that is becoming more diverse, schools must also be open to innovation.

Another significant driver is the demand to raise student achievement outcomes. Schools are frequently compelled to come up with original solutions as the demand to enhance student

success mounts. This can involve implementing new tools, creating innovative instructional strategies, or updating current curricula. To meet these needs, schools must be willing to take calculated chances and have a clear understanding of their objectives and targets.

The requirement for adaptation to shifting student populations is another force behind innovation in education. Teachers have had to come up with new strategies to guarantee that all students have access to high-quality learning opportunities as the student population in classes becomes more varied (Lederer et al., 2021). It has prompted the creation of more individualized learning strategies as well as a greater focus on open practices and cultural competence.

Better data gathering and evaluation are also important drivers. Teachers now have a broad spectrum of resources and devices that can assist them in gathering and analyzing data in real time to comprehend how students are progressing. Once improvement areas are identified, this data is utilized to track student development and guide decisions about education and training.

Finally, an important motivator towards greater innovation in schools is the requirement for greater cooperation. Schools must collaborate with other institutions, groups, and companies to exchange resources and ideas as the globe becomes more linked. This type of collaboration can help schools identify new and creative solutions to their problems and provide students with access to more resources and opportunities.

Innovation in Education

Innovation has become an essential component of the education system, with schools and learning institutions striving to provide students with a modern, progressive education that will prepare them for success in the future. Innovation can encompass various elements, from technological advances to curriculum changes and beyond. Innovation in education can take

many different forms, including technical advancements, curricular modifications, and the creation of novel instructional and learning techniques. The use of novel technologies in the classroom, such as interactive whiteboards, computer-based learning platforms, and virtual reality tools are all considered to be innovations in education (Wu & Chen, 2021). They may also entail curricular modifications, such as the implementation of project-based learning or more student-centered strategies. The use of differentiated teaching or the implementation of problem-based learning are two additional examples of how innovations in education can involve changes to the way instructors educate.

One of the most substantial pros is the improvement of student learning outcomes. By implementing new tools and teaching techniques, teachers can provide students with more compelling learning opportunities that can increase their levels of engagement, focus, and learning efficiency. Additionally, the use of novel technologies can cut down on the time required for lesson preparation, freeing up more time for teachers to devote to presenting the lesson itself. Innovation can be advantageous, offering a more fascinating and diverse curriculum which can help boost student involvement and motivation. Innovation can also help increase the efficiency of the school system. Educators can save time and money by adopting new teaching and learning methods, which can then be applied to other projects like designing more interesting lessons for students or providing them with more individualized support (Wu & Chen, 2021).

Innovation can also aid in reducing the cost of teaching materials because more modern and affordable materials may be utilized in place of more expensive and out-of-date ones. Lastly, innovative methods contribute to raising the standard of education as a whole. This introduction allows learning institutions to ensure that students receive a more comprehensive and holistic education which can better prepare them for success in the future. The adoption of contemporary

technologies can also help to enhance the overall atmosphere and environment of the classroom, making it more conducive to effective learning.

Benefits and Challenges of Innovation in Education

As the requirements of learners in the 21st century change, educators, administrators, and policymakers have recently embraced innovation to enhance the quality of education. The modern student requires personalized, technology-driven teaching that meets their unique learning needs—and this need is only growing and will continue to grow. Another advantage of innovation in education is the capacity to obtain educational opportunities that were previously inaccessible or difficult to acquire.

Innovation in schooling has many advantages. The ability to make learning more engaging for students is among its most important benefits. To accomplish this, technology can be used, including virtual reality, dynamic whiteboards, and online tools. These tools can help to make lessons more dynamic and engaging, as well as provide more opportunities for students to explore and learn. Additionally, innovation in education can help to provide access to resources that are not available in traditional settings, such as online courses, which can be especially beneficial to students who may not have the opportunity to attend traditional classes. Innovation in education can also help to increase student engagement, motivation, and achievement (Juraschek et al., 2021). For instance, using technology, students can interact with one another, work together on projects, and get insightful feedback from peers and teachers. By allowing students to access the content that is most pertinent to them and their needs, technology can also help to give them a more personalized learning experience.

Teachers may have more opportunities to be innovative and adaptable in their instruction thanks to educational innovation. Technology can help provide instructors with the tools they

need to create individualized educational experiences for their pupils and allow them to utilize a wide array of pedagogical methods. It can help to increase comprehension of the subject issue and make lessons more interesting and engaging for them.

Lastly, educational innovation can assist in bringing down the price of education. Teachers can use technology to access resources that are less expensive than conventional methods, such as online resources and courses. Technology use can also lessen the need for physical textbooks, which can be expensive and time-consuming to acquire.

Although there are many benefits to innovation in education, there are also some problems that must be addressed including technology costs. Some schools may find it challenging to afford the hardware and software required to implement cutting-edge educational techniques because technology can be expensive (Adelowotan, 2021). Additionally, since administrators and educators must learn the proper way to utilize new tools and resources, implementing technology can be time consuming. Professional learning establishment is another issue. Teachers must be adequately trained to use technology effectively and efficiently. This can be difficult for some schools, as teachers may not have the time or resources to attend professional development courses or workshops.

Finally, innovation in education can be difficult to implement in some areas, particularly in rural or low-income communities. These areas may not have access to the technology or resources needed to implement educational innovations or may not have the money to pay for the necessary hardware or software.

Superintendency Era

The Era of Superintendents is a crucial period of education reform in the United States. It is marked by the introduction of public school superintendents to lead school divisions and bring

about a new level of accountability and responsibility to public education. The Era of Superintendents began after World War II and is a result of numerous factors. The GI Bill of 1944, for example, increased access to higher education, making it possible for more people to become certified to become school superintendents (Barmak et al., 2021). At the same time, the Baby Boom of the 1950s and 1960s increased the demand for public education and placed additional demands on school districts. The Era of Superintendents saw the introduction of several reforms to public education, including the consolidation of school districts, the establishment of state-level departments of education, and the growth of the federal role in education (Bjork et al., 2014). Superintendents were also responsible for making sure that public schools met certain standards, such as providing adequate resources and ensuring equitable access to all students.

The Era also saw an increased emphasis on accountability. To ensure that public schools achieved their instructional objectives, supervisors were responsible for putting policies and processes into effect. They also tried to make sure that schools offered a secure and encouraging learning atmosphere for students and that they had access to a high-quality education (Kowalski, 2005). Most significantly, superintendents have responsibility for fostering innovation within the public school system. They were the ones who had the foresight to develop and put into practice novel programs, concepts, and tactics that would raise the standard of instruction and boost students' scholastic results. They also worked to ensure that public schools had the resources and support necessary to implement these new ideas.

Definition and the Role of Superintendents in Innovation

Innovation has become a major focus in education over the past few decades, and many school districts are looking to their superintendents to be the primary drivers of innovation.

Superintendents promote innovation in their various school divisions because they are the key decision-makers who determine the path and objective of the state. These individuals need to have a thorough grasp of the needs of their workers, students, and the present educational environment to drive innovation effectively. Innovation is not limited to one specific area but can be applied in various contexts, such as instructional practices, leadership styles, and district policies. Superintendents are in a unique and powerful position to lead innovation in their districts (Peterson, 2014). They are the chief executive officers of their school divisions and are responsible for setting the direction and vision of the district. Superintendents are also the primary decision-makers and have the power to shape the direction of the district. As such, superintendents are uniquely positioned to lead the charge in introducing innovative ideas, practices, and policies.

A thorough comprehension of the requirements, difficulties, and possibilities present in the neighborhood educational environment is a prerequisite for the superintendent's position as a divisional leader in schools. Superintendent leadership is essential for leading innovation in school divisions and has the potential to shape the educational experiences of students and teachers (Aarons et al., 2012). The research of Leithwood and his colleagues (2020) identified five domains of practice for successful school leaders: setting directions, building relationships and developing people, developing the organization to support desired practices, improving the instructional program, and securing accountability. These domains serve as the foundation for superintendent leadership in driving innovation in the school division. Making a vision and mission statement for the school division, as well as establishing and disseminating a strategy to realize that goal, constitutes setting directions (Kowalski & Brunner, 2011). Creating a common commitment to the objectives of the school division, cultivating confidence and comprehension

among stakeholders, and giving opportunities for staff cooperation and growth are all part of fostering connections and people. Establishing rules, methods, and structures that support the school division's goal and vision and fostering an innovative culture is all part of building the company to support desired practices. Lastly, enhancing the educational program entails giving instructors and students resources and assistance so they have the tools and abilities to succeed.

In addition to the domains of practice identified by Leithwood et al. (2020), Marzano and Waters (2009) identified six district-level responsibilities for successful school leaders: collaborative goal setting that includes all stakeholders, establishing non-negotiables for student achievement and instruction, aligning board support for goals, continuous progress monitoring, effective use of resources, and defined autonomy. These responsibilities provide a focus for the superintendent to lead innovation in their school division. An example of this is the superintendent of a school division that has identified a need to increase student achievement in mathematics. A collaborative approach is led by the superintendent with instructors, officials, parents, and other players to develop a strategy for bettering mathematics education (Bird et al., 2013). As part of this strategy, non-negotiable standards for student success and teaching will be established, such as the need for instructors to get professional development and to employ high-quality instructional materials. The superintendent also works to ensure the school board shares the plan's objectives. Lastly, this helps ensure that assets are effectively utilized to accomplish the plan's objectives.

To manage innovation successfully, superintendents need to have a solid understanding of both the needs of their staff and students and the status of education today. To find novel and original answers to the problems that their communities are experiencing, they must be able to recognize emerging trends and possibilities. They should also be daring and creative, ready to

take risks (Gil et al., 2018). To ensure the successful adoption of innovation, superintendents must also be able to engage and inspire stakeholders and successfully convey their goals and concepts to the staff and population (Armbruster, 2011). Superintendents must also be able to efficiently oversee the adoption of cutting-edge concepts and procedures. The innovations must be correctly executed and monitored, and all parties should be on board. To guarantee the effective implementation of the innovations, superintendents must also be prepared to modify and adapt based on feedback and statistics.

Building an Innovation and Learning Culture

In the current educational landscape, innovation and learning are two of the most critical elements that educators must focus on. As the world changes, so do the needs of learners and the expectations placed upon school systems. A culture of innovation and learning is essential for school divisions to stay on top of the ever-evolving educational landscape and ensure that their students receive the best possible education. The creation of novel curricula, technologies, or methods that enhance the standard of instruction and learning can be referred to as innovation in the context of education (Guru et al., 2022). School divisions must establish a setting that promotes and supports risk-taking and innovation to cultivate an innovative learning atmosphere. This includes giving instructors the tools and training they need to try new teaching strategies and tools. It also entails fostering an environment where everyone feels free to express their thoughts and take chances.

Giving people access to technology is one method of fostering an atmosphere of creativity and learning. The ability for students to obtain information and tools from anywhere in the world through technology has permanently altered instruction and learning. School districts can enable teachers to use the most up-to-date tools and materials to give kids access to the best

education possible by giving them access to technology. Technology may also be adapted to support joint learning, which motivates students to examine and debate novel concepts as a group.

Finally, school leaders should endeavor to cultivate a mindset of group decision-making. This entails involving parents, instructors, and pupils in decision-making procedures. School divisions can make sure that all interested parties have a say in the creation and execution of fresh concepts and projects by fostering a culture of shared decision-making. Additionally, this provides everyone with the opportunity to voice their opinions and understand how any changes will affect them.

Theoretical Framework

To respond to the research questions, one innovation framework that can be utilized is the theory of spread of inventions. According to the innovation diffusion theory, the process of creation can be seen as one that involves the spread of an idea from one individual or group to another. According to the notion, innovation is an action that is affected by various variables, including the type of idea, the individuals with it, the setting in which it is disseminated, and the communication techniques used to disseminate the idea.

The theory of diffusion of innovations is useful in understanding how superintendents lead innovation in their school divisions. According to the theory, superintendents are able to lead innovation by utilizing the characteristics of the innovation and the communication channels used to spread the idea (Fernandez-Zubieta, 2021). Superintendents promote innovation by using their positions of power, influence, and expertise to foster an innovative atmosphere. Additionally, they can use their network of contacts to spread innovative ideas to other individuals and organizations. Further, superintendents can use communication channels such as

emails, newsletters, and social media platforms to spread innovative ideas. The theory of diffusion of innovations is also useful in understanding the drivers for innovation in education.

Finally, the theory of diffusion of innovations is useful in understanding how the characteristics and facets of innovation are defined. According to the theory, the characteristics and facets of innovation can be divided into five main categories: comparative benefit, interoperability, intricacy, trialability, and observability. The innovation's perceived superiority over currently available options is referred to as its relative benefit. The extent to which an innovation is compatible with already-established systems, principles, and views is compatibility. Difficulty refers to how challenging it is to comprehend or apply the innovation (Fernandez-Zubieta, 2021). The capacity of an innovation to be tried or experimented with is referred to as trialability. The visibility of the impacts of an innovation is measured by its observability.

Organization of the Study

The remainder of this study is organized by chapters. An introduction to the study was provided in chapter one and the theoretical framework was introduced. The research purpose, and research questions were also discussed. Chapter two will review the pertinent literature involving superintendents and innovation. The methodology and research design are presented in chapter 3. Chapter four will provide an analysis of findings from the data. Finally, chapter 5 will provide conclusions, discussion, and future considerations.

CHAPTER 2: LITERATURE REVIEW

Overview

This chapter provides an overview of the literature on how public institution superintendents support and facilitate school innovation. Education researchers are essential in practice as they identify practical problems and their solutions (Peurach, 2016). A vast amount of literature discusses the various aspects of school superintendents and innovation. The first section of this chapter reviews the role and history of the superintendency. The second section discusses leadership and the superintendency. The third section provides a review of institutional theory. The fourth section defines and describes innovation, and the final section reviews innovation in education. This chapter incorporates diverse literature from various sources to ensure all aspects related to the topic of the study were adequately covered.

Theoretical Framework: Innovation Diffusion Theory

The innovation diffusion theory proposes that the act of creation entails the transfer of an idea from one person or group to another (Rogers, 2003). The concept holds that creativity is a process that depends on several factors, including the kind of idea, the people who have it, the environment in which it is shared, and the methods of communication employed. According to Wani & Ali (2015), the theory has four main elements: innovation, communication systems, time, and social systems. Innovation requires these elements to diffuse into other areas. According to Wonglimpiyarat & Yuberk (2005), variables that affect the innovation diffusion theory include the perceived attributes of innovation, the types of innovation adoption, the communication channels, the nature of the social system, and the extent of change agent promotion efforts.

The innovation diffusion theory was first proposed by Everett Rogers in 1962. The theory aims to explain how new ideas and innovations spread within a community or society (Magalhães, 2021). It assumes that adopting an innovation follows a predictable pattern influenced by certain factors. These factors include the perceived attributes of innovation, the types of innovation adoption, the communication channels used, the nature of the social system, and the extent of change agent promotion efforts (Sani, 2022). The perceived attributes of innovation refer to the characteristics of an innovation that influence its adoption. According to Rogers (2003), the perceived attributes of innovation include relative advantage, compatibility, complexity, trialability, and observability. Relative advantage refers to the degree to which an innovation is perceived as better than the idea it supersedes (Rogers, 2003). Compatibility describes the degree to which an innovation is perceived as consistent with the existing values, norms, and practices of the social system. Complexity refers to the degree to which an innovation is perceived as difficult to understand or use. Trialability refers to how an innovation can be tested or experimented on before adoption. Observability is the degree to which innovation results can be seen or experienced by others (Rogers, 2003).

The various methods that people or groups can accept an innovation are referred to as the numerous types of innovation adoption. Innovations are adopted in five different ways, according to Rogers (2003): by innovators, early adopters, early majority, late majority, and laggards. First to adopt innovations are innovators; next come early adopters who are more cautious but still eager to take chances. The early majority adopts an innovation after its early adopters have demonstrated its viability. In contrast, the late majority adopts it after the social system has embraced it. The last to adopt, if at all, are the laggards. The communication channels employed to spread an innovation are also very important to its dispersion. Rogers classifies

communication into four categories: interpersonal, mass media, niche media, and social networks (Vrain & Wilson, 2021). While mass media refers to communication through outlets like television, radio, and newspapers, interpersonal communication refers to interactions between people that take place face-to-face (Mirtsch, Pohlisch, & Blind, 2020). Communication via venues—including trade periodicals, seminars, and journals—is called "specialized media" (Kumar, 2022). Social networks are informal avenues of contact that include friends, family, and coworkers.

The diffusion of innovation is also influenced by the characteristics of the social system in which it is implemented (Cofré-Bravo, Klerkx & Engler, 2019). Rogers (2003) classifies three different social systems as individualistic, collectivistic, and hierarchical. Collectivistic cultures place more value on social cohesion and compliance than individualistic societies do on individual success and autonomy. Rigid social strata and established power systems define hierarchical societies. The measures performed by people or organizations to encourage the adoption of an innovation are known as the amount of change agent promotion efforts (Srivastava & Fernandes, 2022). Change agents are people or groups who work to encourage innovation adoption within a social system. They work in an official or informal capacity, and their initiatives can range from offering adoption incentives and rewards to supplying information and training. The innovation diffusion theory is essential for understanding how a community or society adopts new ideas and innovations. Everett Rogers's (2003) theory posits that the adoption of an innovation follows a predictable pattern and is influenced by several factors, including the perceived attributes of innovation, the types of innovation adoption, the communication channels used, the nature of the social system, and the extent of change agent promotion efforts.

Role and History of Superintendency

The superintendent plays a massive role in the American school system. The initial primary function of the superintendent was to manage the rapid increase of enrollment in the schools. In the early stages of superintendency, the roles were centered around finances, facilities, operations, and personnel. Peterson (2014) described the leadership traits of school chief executives and concluded that shared vision, a learning culture, and ethics were the most prevalent traits. The superintendent supports the creation, expression, execution, and stewardship of a learning vision, whereby fostering success opportunities for students.

Shared vision means that the superintendent, society, and the school board all share the same idea and goal for the learners in their care. The superintendent promotes a learning culture by advocating and nurturing a school culture that supports and encourages learning. The superintendent enhances ethics in the students by enabling them to act with integrity and fairness. Peterson (2014) concluded that school superintendents have the responsibility of incorporating other skills such as management, highlighting that these skills can be vital to promoting innovation among the students. Armbruster (2011) states that superintendents must be masters of learning and instruction, speakers, collaborators, society builders, and communicators. These skills are essential to enable the superintendents to manage the complex environment of modern-day schools (Armbruster, 2011). Superintendents are leaders and constantly face the need to make decisions to improve their school districts. Peterson (2014) also states that another role of the superintendents is to act according to the policy directives provided by the school board. As a result, the superintendent may face tremendous pressure to meet these directives as the chief executive officer for the school division.

The educational system's success depends on the school superintendent's work. They are charged with ensuring the school district complies with all financial, legal, and personnel requirements, as well as with the teaching and learning processes. Superintendents may have different specialized responsibilities depending on whether they oversee a county, district, municipal, or a state system. Whatever their position, the social, economic, and political environment determine their actions.

Understanding the problems that superintendents face is essential to have context on what their roles entail. According to Björk et al. (2014), the challenges that superintendents state they face ranked from the top include financing schools, school board relations, assessment of student learning outcomes, planning and goal setting, changes in the curriculum priority, management, and accountability and reliability.

Hodgkinson & Montenegro (1999) describe school superintendents as invisible CEOs. The superintendent leads the school district and is responsible for ensuring the learning and teaching process is effective and that all the financial, legal, and personnel involved in the district's education are in the correct order. These roles are defined by social, economic, and political conditions (Björk et al., 2014). According to Hodgkinson & Montenegro (1999), the superintendents' specific roles may differ because they may lead county, district, city, and state systems. Kowalski & Brunner (2011) state that superintendents, like other CEOs in the US, have evolved from being predominantly white males to currently where there are black and female superintendents. Hodgkinson & Montenegro (1999) state that the profession is still predominated by Caucasian males, despite the small increments of individuals of the black race and women.

Superintendents have an important role in the education system as politicians and policymakers often consider changes to public schools without consultation. Hodgkinson &

Montenegro (1999) also describe that superintendents may perform their roles as 'lone rangers' where they perform activities on their own without consulting the school board, while the 'chameleon' superintendent never performs activities on their own, and they only do things as required of them by the board. Understanding the problems that superintendents describe to face is also crucial in providing context to their roles. According to Kowalski & Brunner (2011), superintendents' difficulties include inadequate fiscal support, social contexts, school reforms, and school board relationships. Green (2017) highlights other roles of the superintendents as clerks, master educators, expert managers, and CEOs. The clerical role is because the superintendent supports the school board with everyday items. As master educators, they supply leadership on curricular and instructional affairs. Being expert managers, they display scientific administration and a hierarchy of administration. The CEO role is evident when the superintendent directs and manages reforms, supervises resources, and communicates with the public on behalf of the board.

The lack of proper financial support is one of the biggest problems superintendents encounter. Despite the value of education, limited school funding frequently makes it challenging for superintendents to provide students with all the necessary tools for success. Social circumstances such as cultural differences, values, and beliefs provide additional challenges because of the impact on how children learn and the manner of how schools are run. Superintendents may also face substantial difficulties as a result of school reforms coming from the state or federal levels. Superintendents must stay current on the most recent educational research findings to make policy adjustments that will enhance student outcomes. However, implementing new programs and initiatives can be difficult, particularly if stakeholders object. At times, superintendents may also face considerable difficulties in managing school-board

relationships. The district's policy-setting and decision-making authority rests with school boards (Nindie, 2022). Superintendents must collaborate closely with the board to ensure that their vision for the district fits with the board's objectives. However, disputes can occur, and those conflicts may harm the district.

Despite the challenges, superintendents are essential members of the educational community. They have the authority to make changes to the public schools in America as policy implementers, yet they must do so after consulting others. To ensure that the district is fulfilling the needs of all students, superintendents collaborate closely with school boards, teachers, parents, and community members. Superintendents perform several other crucial roles in addition to implementing policy. The administrative position is one of them. Superintendents assist the school board daily with tasks like handling the budget, responding to questions, and ensuring that rules are followed. Superintendents provide direction on matters related to curriculum and instruction as master educators. To ensure that the curriculum satisfies the needs of every student and that instruction is efficient, they collaborate closely with teachers.

Superintendents need to be skilled managers as well. To ensure the district functions smoothly, they use scientific administration and a hierarchy of administration. Ensuring students have access to the finest education possible requires managing employees, resources, and facilities (Adnan et al., 2021). Essentially, superintendents must function like CEOs. As the district's leader, they oversee resources, manage reforms, and represent the board in communications with the general public (Rios et al., 2020).

Peterson (2014) highlights that the role of school superintendents is nearly two hundred years old, and their functions have not changed dramatically since. Armbruster (2011) says that modern superintendents may perceive their roles as more strenuous because schools have

become more complex with the broadening accountability requirements of federal and state legislatures.

Kowalski (2005) states that the roles of school superintendents have evolved significantly over the past one hundred and fifty years, which is inconsistent with Peterson (2014), who claims that their role has not had significant changes over the years. According to Björk et al. (2014), changes in the schooling system have led to a substantial evolution in the roles and responsibilities of school superintendents in the US since their beginnings. However, both authors acknowledge that the parts have become more complex, demanding, and extensive.

According Kowalski (2005), the superintendent role was created in the 1830s, and by 1900, nearly all US school systems had adopted it. Within twenty years, thirteen sizable school systems had hired administrators (Kowalski, 2005). There was a need for a chief executive because of the desire to expand school districts, merge rural communities, develop the state curriculum, and implement laws requiring mandatory attendance. The superintendent served as the top executive during this time. Kowalski (2005) notes that it is still unclear what the superintendent's primary duties were during the early years of the position's existence, and some say they were those of the school board clerk, while others believe they were aligned more closely with the duties of the head of the school districts. Kowalski (2005) also claims that the role conceptualizations include the superintendent being a teacher-scholar, a manager, a democratic leader, an applied social scientist, and a communicator.

As the schooling system continued to evolve in the US, so did the role of the superintendent. According to Kowalski (2005), between 1910 and 1940, superintendents focused more on administrative duties, such as managing budgets, personnel, and facilities. It was because of the growth of urban school districts, the need for standardized curricula, and the

introduction of new educational theories. During this period, superintendents were expected to be skilled managers who could improve school operations and ensure that all students received the same quality of education. In the 1950s and 1960s, the superintendent roles continued evolving due to the emergence of new technologies and social issues. Kowalski (2005) notes that superintendents began to focus more on instructional leadership and curriculum development during this period. It was because of the introduction of new technologies, such as television and computers, which changed how education was delivered. Social issues such as desegregation, the civil rights movement, and the women's movement also impacted the superintendent's role. Superintendents were expected to be sensitive to diverse communities' needs and promote equality in education.

In the 1970s and 1980s, the superintendent's role became even more complex due to the increased focus on accountability and new laws and regulations. According to Kowalski (2005), superintendents began to focus more on assessing student performance, implementing educational reforms, and ensuring compliance with federal and state regulations. It was because of the introduction of laws such as the Elementary and Secondary Education Act, which required schools to report student progress and meet specific standards. Superintendents were expected to be skilled at data analysis, program evaluation, and policy implementation. Today, the superintendent's role continues to evolve as schools face new challenges, such as the COVID-19 pandemic and the need to prepare students for a rapidly changing job market. According to Björk et al. (2014), superintendents are expected to be skilled communicators, collaborators, problem-solvers, and leaders who can manage complex organizations and promote student achievement. They must also be able to navigate political, social, and economic issues that affect their districts.

Figure 1

The historical continuum of Superintendent Roles



Björk et al. (2014) state that economic, social, political, and technological advancements have significantly contributed to how the superintendents' current roles are defined. Kowalski & Brunner (2011) state that in the early years after inception, superintendents had three primary roles: planning a standard school system for the state, reporting to the relevant stakeholders on how funds are managed, and providing school-related information to the state legislature. While the position of a school superintendent was implemented in New York initially, there are currently state-level superintendents in all fifty states. Kowalski & Brunner (2011) claim that although their overall responsibility involves overseeing education in their jurisdictions, the conditions and titles surrounding their job descriptions are not uniform. Björk et al. (2014) state that people initially referred to the superintendents as teacher-scholars whose primary role was improving students' academic quality. When the intricate nature of the school districts made it impossible for the school board members to manage the schools directly, their responsibilities were enlarged to administrative functions, and the superintendents were expected to monitor the school operations (Björk et al., 2014). The structure and part of the district school boards in the post-World War I era mimicked that of the private sector, with the superintendents assuming the Chief Executive Officer (CEO) role. Björk et al. (2014) claim that education's dynamic nature and purpose form the foundation of the superintendent's function, and as society and politics evolve, so do the superintendents' responsibilities.

Starr (2019) states that superintendents have managerial, logistical, and instructional roles. Starr (2019) says that most superintendents are usually unfamiliar with their specific roles when they enter the office. The author highlights that superintendents' other roles include hashing out union leaders' contractual details, appeasing angry city officials, understanding new state rules, and responding to parents' concerns. Even though these responsibilities increasingly fall within the purview of the superintendent, their training continues to be centered on teaching, learning, and instructional practice. Starr (2019) explains that managerial positions are critical for superintendents to improve learning outcomes and that failure to manage implies the inability to lead.

Starr (2019) states that the evolution of the superintendent's role resulted in many responsibilities, and they can hardly manage without help from the central office. The functions are numerous, including improving the curriculum, overseeing the principals, professional development of the teachers, lesson planning, assessments, and other instructional roles.

Additionally, they must maintain good community relations, make sure the district complies with state and federal laws, and work with various stakeholders, including parents, teachers, employees, and local authorities, to promote educational outcomes. The district's success must be prioritized, so superintendents must proactively detect and resolve problems. They must collaborate closely with teachers and staff to implement evidence-based approaches, track student achievement, and use data to inform decision-making. To ensure that the district's educational programs adhere to the best practices, they must stay current with educational trends, innovations, and research.

In addition to the roles mentioned above, superintendents are also responsible for building relationships and partnerships with various stakeholders in the community. According to

Armbruster (2011), superintendents must foster good relations with parents, community members, and local business leaders to ensure the school district's success. Peterson (2014) states that effective communication is crucial for superintendents to communicate with various stakeholders, including parents, students, teachers, school board members, and community leaders. They must inform these stakeholders about the district's progress, goals, and challenges and listen to their feedback to improve its performance. As noted by Kowalski & Brunner (2011), superintendents must stay up-to-date with educational research and national trends in education to make informed decisions about policies and programs that benefit students. They must collaborate with school board members, teachers, and staff to develop a curriculum, implement instructional strategies, and evaluate student progress. Additionally, they must ensure that their district meets state and federal mandates related to student achievement, teacher evaluations, and school safety.

Furthermore, superintendents must proactively address the various challenges facing their school districts. According to Björk et al. (2014), some of the most common challenges that superintendents face include limited funding, changing demographics, and declining student enrollment. To address these challenges, superintendents must be creative in finding new funding sources, developing innovative instructional strategies, and implementing programs that attract and retain students. They must also be able to navigate complex legal and regulatory frameworks related to education, such as special education laws, labor laws, and school safety regulations.

The role of school superintendents is complex and multifaceted. They are responsible for managing and leading school districts, ensuring student success, building relationships with stakeholders, creating and implementing policies and procedures, and addressing the various challenges that face their school districts. Despite the many challenges that they face,

superintendents are critical to the success of our educational system. As schools continue to evolve, superintendents play a vital role in shaping the future of education in the United States.

Superintendents must possess leadership and motivating qualities. They must create a distinct vision for the district, share it with all stakeholders, and inspire the district to take action to realize that vision. Teachers, administrators, and other staff must be encouraged and motivated to pursue excellence and boost student results continuously. Strong leadership abilities are needed, including assigning tasks, offering assistance and direction, and holding people accountable for their conduct.

Björk et al. (2014) outlined the knowledge and skills of superintendents related to the five role conceptualizations. These skills enable the superintendent to perform their roles effectively. The pertinent knowledge and skills that allows the superintendent to perform his function as a teacher-scholar include pedagogy, educational psychology, curriculum, staff development, education supervision, and instructional supervision. The superintendent, as a manager, has the pertinent knowledge and skills of law, personnel administration, finance and budgeting, public relations, and collective bargaining or contract maintenance. As a democratic leader, the superintendent has pertinent knowledge and skills in community relations, politics, and collaborative decision-making. The superintendent is also an applied social scientist, and they have the relevant knowledge and skills in qualitative and quantitative research. As a communicator, the pertinent knowledge and skills are verbal communication, written communication, and public speaking.

Björk et al. (2014) also designated another role to the superintendents. They named it the multi-role, and it encompasses knowledge and abilities relevant to all job roles, including those in leadership theory, organizational change theory, motivation theory, ethics in management,

human relations theory, diversity theory, and multiculturalism. Björk et al. (2014) researched the job patterns of superintendents and determined that the majority were initially teachers before moving to assistant principal or principal and their appointment as superintendents. Hodgkinson & Montenegro (1999) state that the only path to superintendency is by becoming a teacher, then a principal before becoming appointed as a superintendent. Therefore, most superintendents have experience managing and overseeing students' activities at the classroom level.

In conclusion, the role of school superintendents in the US has evolved over the past two centuries, and their responsibilities have become more complex and demanding. While there may be different conceptualizations of the superintendent's role, it is clear that they play a crucial role in ensuring that students receive a quality education and that schools operate efficiently. As the school system continues to evolve, so will the superintendent's role, and it will be essential for superintendents to adapt and grow with the changing times to meet the needs of their districts.

Leadership and the Superintendency

A crucial component of the superintendency is leadership. The superintendent ensures that educational policies and programs are implemented to give students the best education possible. The superintendent is the highest-ranked official in a school district. Kesting et al. (2015) define leadership as a social influence process in which one person influences others' attitudes and behaviors as they collaborate to achieve a common goal (Nunn Lawless, 2019). The school district's superintendent significantly impacts the attitudes and behaviors of teachers, students, and other stakeholders. The superintendent's top priority is the best learning and teaching environment for children and teachers. The superintendent is a foundational piece of leadership in the district's educational environment, according to Devono (2009).

The superintendent is also responsible for creating budgets and policies, employing and overseeing staff, and implementing educational plans. The superintendent's leadership is essential to foster a culture of creativity and experimentation in the classroom (Brion, 2021). The superintendent can assist teachers in creating instructional programs that cater to the various needs of children by providing them with the necessary tools and assistance.

To achieve student success, the superintendent, as a leader, must assist staff members in implementing high-quality teaching and instructional leadership. To keep teachers up to date with the most recent findings in educational research and the industry's best practices, the superintendent must offer continual professional development opportunities. To ensure that all teachers uphold the district's expectations, they must collaborate with principals and other district administrators to build efficient teacher evaluation procedures. The central office reform must be led by the staff, with assistance from the superintendent. Montgomery (2020) asserts that the superintendent must give the central office employees the authority they need to aid in school improvement attempts. The central office personnel, in turn, should provide schools with the tools and assistance to achieve the district's goals and objectives. The superintendent must also collaborate closely with the personnel in the central office to create policies and practices that effectively promote student learning.

The superintendent must also practice leadership in small settings that are learning-focused. Influential leaders accomplish this by having meaningful interactions with small groups of individuals to generate trust and a shared vision, according to Kesting et al. (2015). In order to accomplish a shared vision and achieve meaningful progress on the district's aims and objectives, the superintendent must communicate clearly with teachers, parents, and other stakeholders.

Additionally, they must be able to actively listen and be responsive to criticism, modifying their leadership style if necessary.

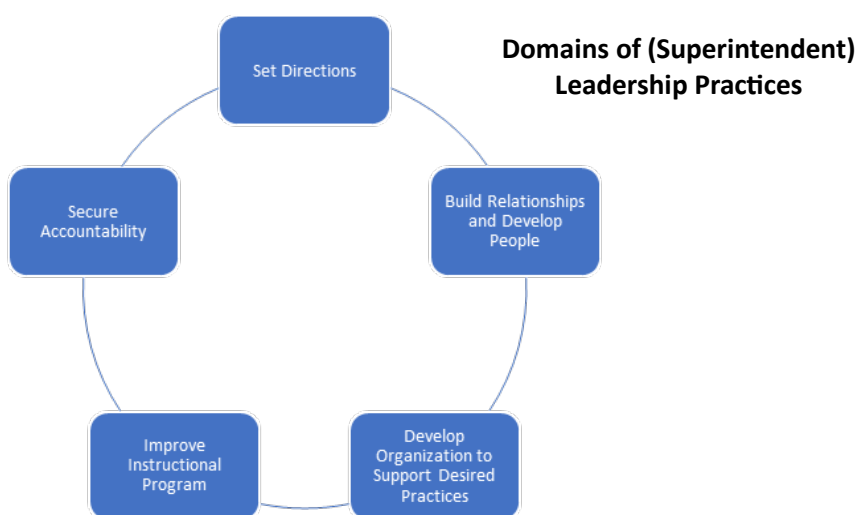
According to Bredeson et al. (2011), superintendents should possess the leadership qualities of generosity, caring, creativity, and honesty. Bredeson et al. (2011) identify three main leadership themes that superintendents have. First, they acknowledge that the students' needs rank first in their list of priorities. Every decision they make must be child-centered, and they should keep the students as the focus of their professional work. The second theme is the focus on the vision and mission of the public-school system. Bredeson et al. (2011) state that although superintendents' roles differ in different jurisdictions, they all work on clarifying, communicating, and projecting a vision and mission dedicated to caring for and developing the students. The third theme was the establishment of trust with other individuals inside and outside the organization.

Hitt & Tucker (2016) highlight the roles and responsibilities of superintendents as school leaders. They are responsible for establishing and conveying the schools' vision, facilitating a high-quality learning experience for the students, building their professional capacity, creating a supportive organization for learning, and connecting with external partners like parents and sponsors. Hitt and Tucker (2016) report that one of the primary drivers of student performance is teacher wellbeing, including their access to resources and administrative support. According to Przybylski et al. (2018), the responsibilities of superintendents should be to create and carry out programs that the federal and state governments oversee while they respond to political pressures in the school division by working with board members, communicating with stakeholders, and interacting and associating with significant community members.

The research of Leithwood and his colleagues (2020) identified five domains of practice for successful school leaders: setting directions, building relationships and developing people, developing the organization to support desired practices, improving the instructional program, and ensuring accountability. These domains serve as the foundation for superintendent leadership in driving innovation in the school division. Making a vision and mission statement for the school division, as well as establishing and disseminating a strategy to realize that goal, constitutes setting directions (Kowalski & Brunner, 2011). Creating a common commitment to the objectives of the school division, cultivating confidence and comprehension among stakeholders, and giving opportunities for staff cooperation and growth are all part of fostering connections and people. Establishing rules, methods, and structures that support the school division's goal and vision and fostering an innovative culture is all part of building the company to support desired practices. Lastly, enhancing the educational program entails giving instructors and students resources and assistance so they have the tools and abilities to succeed.

Figure 2

Leithwood's Domains of (Superintendent) Leadership Practices



In addition to the domains of practice identified by Leithwood et al. (2020), Marzano and Waters (2009) identified five district-level responsibilities for successful school leaders: collaborative goal setting that includes all stakeholders, establishing non-negotiables for student achievement and instruction, aligning board support for goals, continuous progress monitoring, and effective use of resources. These responsibilities provide a focus for the superintendent to lead innovation in their school division. An example of this is the superintendent of a school division that has identified a need to increase student achievement in mathematics. A collaborative approach is led by the superintendent with instructors, officials, parents, and other players to develop a strategy for bettering mathematics education (Bird et al., 2013). As part of this strategy, non-negotiable standards for student success and teaching will be established, such as the need for instructors to get professional development and to employ high-quality instructional materials. The superintendent also works to ensure the school board shares the plan's objectives. Lastly, this helps ensure that assets are effectively utilized to accomplish the plan's objectives.

Bird et al. (2013) highlight that authenticity in superintendents playing their leadership role results in improved student performance. Authenticity results in improved performance because the leaders have vital internalized moral perspectives, which enable the schools to move toward their goals of improved student performance. Administrators at the building level are crucial to this process since they are responsible for ensuring that the set policies are executed in the schools (Waters & Marzano, 2009).

Additionally, superintendents establish non-negotiable goals or targets that must be met by all employees. These goals cover either the student's achievement or classroom instruction. The superintendent develops a broad common framework that directs instructional design and

planning rather than adopting a single inflexible instructional model. Teachers and students differ in different schools, and establishing a rigid model would reduce educational quality. The superintendent ensures that the board aligns and supports the intended non-negotiable goals of achievement. The board then categorizes these goals as a top priority, ensuring that no activities hinder achieving these goals (Waters & Marzano, 2009). Effective superintendents make revisions as needed by monitoring the goals' efficacy and progress. The superintendents provide the resources required, such as the necessary amount of time, money, staff, and materials, to meet the objectives (Waters & Marzano, 2009).

Figure 3

Marzano and Waters Superintendent Leadership Responsibilities



According to Montgomery (2020), school leaders must be well-aligned with the current technological requirements of the administrative roles that they fill and be adept at understanding how technology can be applied in schools. Technology has proved to be an efficient educational

tool, and teachers should utilize it to improve learning outcomes. Therefore, as a leader, the superintendent should aim to improve learning outcomes through technology. Sterrett & Richardson (2019) state that superintendents must possess knowledge about change processes because, as leaders, they should aim to adopt evidence-based practices that ensure improved learning outcomes. Technology leadership refers to the practice of educational leaders like superintendents embracing technology in school practice. Sterrett & Richardson (2019) describe superintendents who embrace technology as technology-savvy superintendents who focus on instructional leadership and can plan, monitor, and support technology usage in the classroom to improve the student's learning outcomes. Montgomery (2020) states that changing knowledge is crucial in the current education era to ensure the implementation of reforms that may improve the student's learning outcomes. Devono (2009) states that to ensure change, the superintendents should lead using the bottom-up approach to ensure the transition is effectively introduced. To enhance employee learning outcomes, they should also create alignment among stakeholders and effectively convey what needs to occur. Superintendents should be aware of how their choices affect students' academic achievement and how they may assist them in their pursuit of academic success. Incorrect and wrong decisions are costly, potentially reducing student performance and decreasing efficiency in public schools. Therefore, decisions should be made in tandem with the teachers, administrators, and staff who spend the most time with the students in school and the classroom.

Change can be challenging to implement in an organization, especially in the educational sector. Devono (2009) contends that to implement change successfully superintendents should take the bottom-up approach to leadership. This strategy involves incorporating parents, instructors, and students in the decision-making process to achieve alignment and effectively

communicate what needs to be done to improve learning outcomes. This strategy encourages buy-in and ownership of the process from all parties involved, which increases the likelihood that change will be implemented successfully.

According to Etame (2017), effective leadership styles are required in the current competitive and dynamic educational system to lessen restraining factors and enhance students' academic success. Effective superintendents can turn around a failing school by providing results-driven leadership and involving faculty, staff, and other administrators in daily operations. Superintendents are essential in guiding educational institutions toward improved student and school performance. Achieving these objectives depends on effective leadership, so superintendents must have a clear vision, excellent interpersonal and communication skills, and a commitment to ongoing professional development.

Leithwood (2013) highlights that as district leaders, superintendents should have distinct roles that set them apart and enable them to perform their functions optimally. The bottom line of having strong and efficient leaders is improving student learning outcomes and performance. Robust and efficient leaders can lead their organizations to achieve their goals, and in the context of district schools, solid and efficient superintendents can improve their students' learning outcomes. According to Przybylski et al. (2018), the responsibilities of superintendents should be to create and carry out programs that the federal and state governments oversee while they respond to political pressures in the school by working with board members, communicating with shareholders, and interacting and associating with significant community members.

A procedure for improvement that is focused on learning must be created by superintendents (Slater, 2023). Data must be gathered and analyzed to evaluate the students' learning outcomes, identify areas of strength and weakness, and create plans to improve these

areas. The superintendent should collaborate with principals and teachers to apply these techniques and assess their success in achieving their objectives. The alignment of time, staffing, policies, and budgets with the district's objectives is another crucial duty of superintendents. It entails creating and implementing a strategic plan that allows funding to support the district's priorities, such as appointing and keeping in place qualified educators, supplying the tools and materials required for instruction, and putting in place rules and regulations that promote student learning. Additionally, superintendents must promote a collaborative environment among their team members and other stakeholders. It entails being readily visible and approachable to all district residents, paying attention to their concerns and suggestions, and cooperating to solve problems. The school board members, who are in charge of making policy decisions should get guidance and assistance from the superintendent.

According to Green (2017), superintendents' primary responsibility is being directive, defining a vision, coordinating schedules, and providing resources to help students achieve better learning results. Being leaders, superintendents ought to work with school administrators to ensure change through instructional leadership. Green (2017) highlights that superintendents cannot practice leadership and achieve tasks alone, as successful leaders develop and consider contributions from other players in their organizations. Superintendents should work with school principals and the board to ensure effective and transformational leadership.

Strong leadership, excellent communication, critical thinking, the ability to act swiftly and wisely, and the capacity to handle issues are all traits of effective superintendents (Em, 2023). These qualities characterize a successful and efficient leader. According to Toprak et al. (2015), leadership styles majorly impact organizational health. They note that a transformational

leadership style contributes to creating a healthy school environment and that a transactional leadership style contributes to an unhealthy school environment.

Superintendents should exercise critical thinking since they may be required to develop and implement evidence-based policies. Making swift and sound decisions is an essential leadership skill that superintendents must possess because their decisions in matters great and small affect student success outcomes. As the school district leader, the superintendent has to portray leadership qualities of setting goals, policies, and procedures backed by evidence to improve learning and teaching. Leaders are expected to set the example of what it means to be professional and motivate others to conduct themselves in a similar fashion in school and at other events. The superintendents must be able to solve difficulties since they are up against many obstacles. Examples of issues that superintendents have to solve include conflicts and insufficient budget allocation. Other stakeholders look up to them to solve these conflicts without bias.

Superintendents must also give staff members' professional development priority. They must offer professional development opportunities incorporated into the workplace and share with their personnel the tools they need to adapt to the changing needs of the educational landscape. This includes training courses on cutting-edge technologies, instructional strategies, and educational trends. Superintendents must ensure that their schools have the tools needed to give pupils a high-quality education that will prepare them for success in the twenty-first century by investing in the professional development of their personnel. Superintendents must also be concerned about mental health and emotional wellness for the students they serve.

Superintendents should be proactive in meeting the emotional needs of their pupils in light of the COVID-19 pandemic's emphasis on mental health and wellbeing. It involves adopting rules that

encourage students to adopt healthy habits and lifestyles and offering tools and help to students dealing with mental health difficulties.

To ensure that the district meets all stakeholders' needs and expectations, superintendents must also try to engage with the larger community. This may involve speaking with parents, local authorities, and other interested parties to understand their wants and needs and incorporating their suggestions into district policies and activities. Superintendents can create solid partnerships that improve educational quality and support the academic success of all students by collaborating with the larger community. Davidson et al. (2019) highlight that superintendents are leaders who play vital roles in influencing culture, policy agenda, and strategic decision-making.

Superintendents' leadership is demonstrated by competencies such as their ability to build effective relationships, visionary leadership where they engage the community to implement a vision for the good of the student's future, leading learning where they establish a learning culture in the district schools, and directing school authority and operations. Davidson et al. (2019) state that effective superintendents know and understand their public image. Because of this awareness, they emphasize areas like instructional leadership more than fundamental political and management responsibilities, which may take most of their time and effort. Davidson et al. (2019) also say that as leaders, superintendents want to seem impartial because, during interviews, even those private in research, they are likely to provide politically safe answers about their roles when controversial responses would result in political consequences.

Davidson & Hughes (2019) state that trust plays a significant role in superintendent leadership to improve the outcomes of the students. They must earn the respect of everyone in their leadership role, including parents, teachers, administrative assistants, students, principals,

members of boards, educators, and other elected representatives. Trust is a crucial measure of competence in superintendents. Davidson & Hughes (2019) state that gaining and maintaining trust from the relevant stakeholders makes the superintendents' work challenging. They must make complicated decisions that will positively impact the learners, and decisions that lead to failure may damage the stakeholders' perception of the superintendents' competence. Recovering from the distrust may be daunting, and they may be subject to a lot of resistance that may hinder them from performing their roles.

Przybylski et al. (2018) state that superintendents face various leadership challenges. The superintendents should establish broadly shared district mission, vision, and goals, offer clear instructional guidance, develop a process for learning-oriented improvement, offer job-integrated professional development, and ensure that the budgets, staff, policies, and time are in line with those objectives. They should also foster positive working relationships with staff and other stakeholders. Davidson et al. (2019) describe the collaborative roles of the superintendent, which may help them build trust with the individuals they work with and make their work easier. The superintendent cannot work in isolation to improve the school district; instead, they must collaborate with the school board, the public, and the principals and teachers. By working together, the stakeholders can see that the superintendent's actions aim to improve the learning outcomes. Lenihan et al. (2020) highlight that good superintendent-principal relationships lead to the smooth running of operations in the school. The influence of the superintendent shapes the schools' instructional improvement process. Schools are more likely to work together to better themselves when stakeholders believe the superintendent is passionate about change. Davidson et al. (2019) also state that the trust the superintendent obtains determines the board's perception of them, and increased trust implies increased support.

Pochintesta (2020) highlights the role of educational leadership that superintendents have. The author states that the superintendents' leadership impacts influence student learning and academic achievement. One of the primary responsibilities of school boards, who understand the value of superintendents as district leaders, is hiring a superintendent.

Institutional Theory

Institutional theory is essential to understanding how innovation is needed in public schools. The private sector invests in innovative strategies and procedures to ensure an increase in revenue streams. The public sector has also determined the need to formulate innovative techniques in an effort to meet increased demands and pressures (Risi et al., 2023). The institutional approach, a theory on the more fundamental and durable facets of social organization, seeks to explain social behavior (Naito. Zhao & Chan, 2022). The theory defines social behavior through schemes, norms, and routines that have are established as regular practices that guide behavior. It explains how things develop over time, become disseminated, adopted, and modified, and how losing use causes them to crumble (Naito. Zhao & Chan, 2022). The formal and informal governance structures in society are studied using this theory, which contends that the institutional environment affects the formation of formal structures within the organization. The theory is derived from organizational studies and sociology, and it explains how various organizational structures developed and how over time, rules and codes became accepted in society as the norm (Naito. Zhao & Chan, 2022).

Institutional theory applies to schools because general institutionalism commences from the essential recognition that human activities within larger institutional schemes tend to be stable (Kafka, 2018). In the US, the strand of institutionalism that is most influential in schools is neo-institutionalism. According to Kafka (2018), schools are central to neo-institutionalism

because of their resistance to change, reliance on traditional practices that may be ineffective, and their homogeneity. Kafka (2018) also states that schools face high uncertainty and conflicting objectives, and their survival depends on legitimacy rather than performance up to a certain standard. This theory may explain why schools in the US resemble each other despite lacking any form of centralized governance. Neo-institutionalists may see creative changes made by a school as mostly symbolic of guaranteeing that the organization conforms to changes in institutional expectations without changing its fundamental activities, as defined in the context of the school's purpose (Kafka, 2018).

Innovation

In the current environment, innovation is necessary in every sphere of life to ensure survival. Growth and change are necessary for individuals, families, teams, organizations, and societies to ensure they thrive within their environments. Innovation implies a practice or product new to its developers or potential users (Klein & Knight, 2005). Innovation adoption is the decision to use a new product or practice, while innovation implementation is the process whereby the users become more skillful, committed, and consistent in using the innovation. While adoption is often perceived as easy, implementation is usually more challenging because organizations decide to adopt new strategies, yet only a few maintain the effort for an extended period. Klein & Knight (2005) state that leaders and managers are essential to the implementation process since their commitment to innovation affects whether the company will adopt and apply it. According to Klein & Knight (2005), additional important elements that serve as antecedents of innovation implementation efficacy include the set of implementation policies and practices put in place by the organization, the team's or organization's climate for innovation, and the accessibility of resources to support the innovation, the team's orientation toward

learning, and the managerial patience. Cillo et al. (2019) highlight the need to involve stakeholders during innovation adoption and implementation to ensure its success. Involving internal and external stakeholders is necessary to obtain their support and orient them on the necessary procedures to enhance workplace innovation. Klein & Knight (2005) state that the stumbling blocks that lead to the failure of innovative strategies in organizations include unreliable and imperfect designs, lack of technical knowledge and skills, time-consuming nature, and rigidity in organizations that resist change.

Henderson & Clark (1990) describe innovation as refining and improving an existing design or procedure and introducing a new concept that differs significantly from past practice. Incremental innovation introduces minor changes to the procedure or product, and although it does not draw from completely new procedures, it requires considerable skill and ingenuity. Radical innovation, on the other hand, involves introducing abrupt changes in the procedures or products, which are an improvement from the previous methods.

According to Kesting et al. (2015), innovation is when an organization formulates an improved product, service, or process to advance or compete successfully. Klein & Knight (2005) state that innovation is a topic of massive interest to organizational psychologists, managers, and leaders. Innovation allows organizations to stay ahead of competitors and provide consumers with optimum products and services. The challenge of embracing innovation is at its implementation stage, as it requires the organization to continue using the new procedures and abandon the old ones. Klein & Knight (2005) also highlight that successful innovation does not end when the management and leaders decide to implement innovative strategies, as this would only represent innovation adoption. Instead, they must devote great attention, conviction, and resources after the decision to ensure successful implementation after adoption. The leaders have

to be committed to achieving the long-term benefits of innovation to devote attention and resources towards innovation, and therefore, they have to acknowledge that the benefits are worth more than the risks. They have to be patient with the process because, during the period of change, the organization's productivity may be diminished over the short term before achieving the intended gains in the long term. They should also be patient with the stakeholders initially receiving the innovation and provide them ample time to adjust accordingly.

Innovation in Schools

According to Gil et al. (2018), teachers implement school innovation in the classroom with support from administration. Factors that facilitate school innovation include creating a learning culture and developing an organizational structure. According to Rivers et al. (2015), school innovation is essential to enabling young people to become change agents and transform lives. Rivers et al. (2015) state that the driving forces that enable students to become innovative include the need to become original and inventive to apply lateral thinking and the desire to become future thinkers. School management and leaders should be the drivers of innovation in school to ensure that students improve their learning outcomes through critical learning and that they can drive change in society.

Gil et al. (2018) state that innovation is crucial in the classroom because it improves teaching and learning outcomes. According to Gil et al. (2018), building innovation capacity—defined as continuously enhancing an organization's resources and capacities for finding possibilities—is necessary. Innovation capacity encompasses the concrete results of innovation and the procedures and processes that lead to innovation. Gil et al. (2018) also state that innovation's success depends entirely on willingness, and in the case of schools, it depends on the willingness of teachers and administrative teams to change their behavior.

School leadership is vital for innovation because leaders can implement various activities and strategies to facilitate creativity among teachers and students. Holland (2020) states that administrator belief plays a significant role in influencing the adoption of innovation in the school. Teachers and administrators who believe in constructivist practices are usually willing to use innovative strategies, like technology, to teach their students and improve their learning outcomes.

Stewart et al. (2012) state that various school reform efforts focus on improving learning outcomes and opportunities for students. These reforms are necessary because, as education is dynamic, changes enable education to be updated to suit the student's needs. Much research has also provided essential information on aspects that should be changed in the school structure to improve students' performance. These reforms increase the use of innovation in schools. Stewart et al. (2012) state that the barriers to these reforms are mandates, school boards' resistance, federal requirements, community expectations, budget control, insufficient funds, and difficulty controlling personnel. Hughes (1968) states that open organizational climates support adopting innovation. Hughes (1968) introduces the concept of the superintendent thrust, which are the features that describe the superintendent as being highly motivated and hardworking. These superintendents promote innovativeness to achieve the best possible results in their operations. According to Giles & Hargreaves (2006), one method by which schools are able to maintain sustainability is through innovation.

Temkin & Brown (1974) emphasized the need to safeguard educational innovations because considerable resources have been invested into assuring innovation in schools. Innovation in schools is evident from the curricular updates, organizational structures, and new technologies used. Educational research also uses many resources to find innovative strategies to

improve classroom learning and teaching outcomes. Braßler & Schultze (2021) state that school innovation is essential to enable students to create change for sustainability in the future. Braßler & Schultze (2021) concludes that innovation is evident in schools in interdisciplinary learning. According to Serdyukov (2017), innovation is essential for education since it is a social institution that meets societal requirements and should be comprehensive, durable, and continually adapt to new problems.

Innovation in education is essential to ensuring that future generations are equipped with the tools that they need to lead and continue to adapt to the ever changing challenges that life presents. Since society is ever-evolving, innovation is necessary to ensure the education provided to students is reliable. Without innovation, education could become outdated, leading to challenges in various community sectors. As society continues to change, so does the kind of education students need from schools. According to Serdyukov (2017), a lack of innovation may have profound economic and social impacts. Innovation is necessary to increase and improve the country's education levels.

In today's rapidly evolving world, innovation in education is essential. To ensure that students are equipped for the future, we must adapt to technological breakthroughs, changing demographics, and fluctuations in economic and social environments (Naito, Zhao, & Chan, 2022).

The use of technology in education is one of the main areas where innovation is essential. Technology has completely transformed how we live, work, and learn. Thus, students must have access to the skills and resources required to thrive in a technologically advanced society. It covers accessing technology and using it well for creating, collaborating, and learning. Developing and implementing the curriculum is another area where innovation is essential.

Students can develop critical thinking, problem-solving, and the communication skills necessary for success by using creative curricular approaches that prioritize interdisciplinary, project-based, and individualized learning (Cao, Chen, & Evans, 2022). Innovation in education also entails reevaluating conventional classroom setups, teaching techniques, and content and technology. Students can be engaged, and learning can be made more relevant and meaningful, by using cutting-edge teaching techniques that prioritize student-centered, active, and experiential learning.

Considering how innovation affects teacher preparation programs and professional growth is crucial. Teachers must have the information, abilities, and tools necessary to adopt novel tactics successfully. Innovation in this context offers opportunities for continued professional growth, access to tools and assistance, and chances to work together and exchange best practices.

Despite the clear advantages with innovation in education, some school systems are reluctant to adopt it. Here are some of the reasons why the adoption of innovative programs is problematic. Resistance to change is one of the main obstacles. Many educators and decision-makers feel at ease with conventional methods of teaching and are reluctant to adopt novel methods that might be unproven or unfamiliar. The price of innovation is another difficulty. Innovative strategy development and implementation can be costly and require a significant investment in infrastructure and resources. However, because educational innovation has the potential to enhance student results, increase student engagement, and create a more competitive workforce, the long-term advantages far outweigh the short-term costs.

Kotsemir et al. (2013) state that the concepts of innovation include the implementation of goods that are new to consumers or of higher quality than their previous counterparts, the

performance of production methods that are new to specific industries and economic activities, the opening of new markets, use of a new source of raw materials, and new forms of competition that lead to structural changes within industries. This concept of innovation also aligns well within the education sector. Using the education setting for example, innovation may take the form of creating a flipped or hybrid classroom or developing methods to encourage effective and efficient communication between instructors and students. Educators and instructors use innovative strategies to improve student's learning outcomes and academic performance. In addition, to improve the student's learning outcomes and academic performance, innovation may enhance the students' soft skills, which may be crucial determinants of the student's success. Innovation in education also involves introducing new technologies that make learning more accessible for students.

Some examples of innovation in education include project-based learning, blended learning, and education technology enhancements (Eliyasni et al., 2019). Project-based learning helps students to identify real-world problems and develop realistic solutions to the issues. Blended learning combines traditional classroom instruction with distance learning, giving students flexibility over where and when they attend class. Education technology refers to the software and applications that are incorporated into the classroom to aid in the learning and teaching process. There are numerous innovative strategies that administrators and school leaders can utilize to improve their students' learning outcomes.

Superintendents and Innovation

District public school superintendents are key decision-makers who encourage innovation to raise students' academic performance and guarantee that teachers provide the best instruction possible. Auguste (1986) states that the leadership styles of superintendents affect how they

practice and encourage innovation strategies in their leadership realm. Auguste (1986) asserts that superintendents who practiced high relationship leadership behavior style tended to use linear programming which cultivates an environment supporting innovation. Auguste (1986) concluded that years of experience alone was not sufficient to encourage leaders to adopt innovative strategies. Those superintendents whom Auguste evaluated (1986) who did adopt innovation were found to align themselves most closely with leadership styles which allowed their subordinates the freedom to formulate and test new strategies, rather than more authoritarian leadership styles that required strict adherence to a set of policies.

Improving teaching and learning in district public schools depends heavily on innovation in education. In their areas of responsibility, superintendents have a major influence on promoting and encouraging new strategies. Their leadership behaviors and styles significantly impact the district's adoption and implementation of innovation, as well as the district's culture and how teachers approach teaching and learning. According to Auguste's (1986) research, leadership styles that value relationships are more likely to foster creativity in educational settings. People-oriented leaders are more likely to foster an environment that supports and stimulates creativity. They are more likely to value developing relationships with their staff members and are more open to working together and including others in decision-making. Relationship-focused leaders generally promote experimentation and the open exchange of ideas, which are crucial elements of innovation.

In contrast, Auguste (1986) argued that task-oriented executives tend to emphasize achieving goals and objectives more. Task-oriented leaders are crucial for ensuring objectives are completed, but they could be less inclined to foster creativity because of their preference for adhering to accepted practices and standards and potential resistance to change. Task-oriented

leaders tend to stay with tried-and-true techniques versus taking chances with novel and unproven ideas. Superintendents with the strongest interest in fostering innovation in public schools are both task- and people-oriented (Auguste, 1986). These leaders tend to accomplish goals and objectives while creating an atmosphere that values and promotes creativity. They place a high value on fostering a sense of community among their employees, including everyone in the decision-making process, and promoting innovation and the open exchange of ideas.

Sterrett & Richardson (2019) state that technology-driven innovations have led to the evolution of new challenges for leading modern school districts. These technologies present unique problems that school leaders are supposed to find new ways of solving. Sterrett & Richardson (2019) acknowledge that despite the immense value in adopting new technology, there are roadblocks for superintendents that seek to adopt innovative technology, such as, financial barriers, infrastructure upgrade problems, and addressing stakeholders' fears. The superintendents' desire to shift away from conventional learning to enhance students' learning outcomes may be met with opposition from stakeholders who doubt the implications of new technology on teaching and learning.

Dickson & Mitchell (2014) state that the primary role of district-level superintendents is to delegate broad administrative responsibility to ensure school improvement. The notion of a "learning community" illustrates how schools are expected to assist teachers and student's education. Therefore, they also have the duty of developing capacity for these communities. This concept demonstrates district- and school-level leaders' crucial role in supporting improved teacher development and learning outcomes. Dickson & Mitchell (2014) state that the superintendents' vital role as district leaders is creating supportive environments that enable

teachers to learn effectively and professionally. The authors state that the superintendents can provide safe environments for the teachers by showing them that they are also learners so that they can feel safe during learning.

Dickson & Mitchell (2014) state that professional knowledge can enhance student outcomes by introducing techniques about achievement data, fresh research, and creative concepts that can be used in the classroom. The primary purpose of professional learning is to build the teacher's capacity to teach effectively and improve student outcomes. The superintendent, as a leader, plays a key role in ensuring the teachers learn effectively by providing a friendly environment that supports their learning. Superintendents can also promote professional understanding as an innovative strategy, which leads to the teachers' career growth and improved student learning outcomes.

While private schools may have control over the resources required to provide innovation, public schools are often constrained by their environments and finances. Williams (2013) states that innovation is necessary for the educational sector because of its advantages, including strengthening operational efficiency, improving performance, attracting a skilled work force, and cultivating knowledge. The organization's objectives guide innovation, and for public schools, the superintendent is in a strong position to understand the institutions' objectives that would drive innovation. According to Williams (2013), innovative superintendents ensure school success by focusing on the correct change and understanding the process required to achieve the desired change.

Innovation has become a buzzword in the education sector, and for a good reason. With changing times and new technological advancements, schools must keep up with the trends to

provide their students with the best learning outcomes. Superintendents, as the leaders of district schools, play a crucial role in driving innovation and ensuring their schools remain competitive.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the processes and procedures the researcher used to research public school superintendents and innovation. The research scope aimed to discover how leaders drive the development of innovation in public schools with a focus on the Commonwealth of Virginia. The research study sought to answer the following questions:

1. How do school superintendents define innovation?
2. How do public school superintendents foster innovation in their school districts?
3. Are there specific steps in building an innovative culture?

This study aimed to determine superintendents' roles in promoting and effecting school-division innovation. Superintendents are leaders tasked with various responsibilities, one of them being to improve the learning outcomes of their students. This section outlines how the qualitative study was conducted. The population and sampling techniques are also outlined, as the population of the study involved school superintendents. The data collection methods, data analysis, and ethical considerations are also outlined in this chapter.

Critical Incident Technique

The Critical Incident Technique (CIT), developed by Flanagan (1954) in collaboration with members of the Aviation Psychology during World War II, is a set of procedures utilized for collecting direct observations and/or real-life accounts to address practical dilemmas (DiSalvo et al., 1989). Initially, CIT was used to capture critical incidents experienced by air pilots (Flanagan, 1954; Sharoff, 2008). Originally based in quantitative studies, CIT has been largely

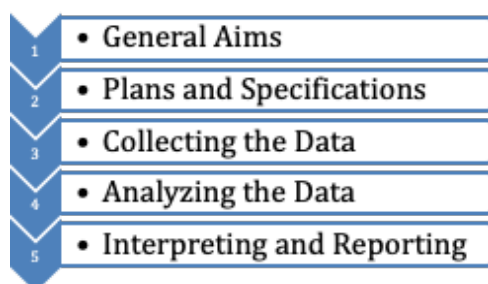
utilized in inductive, qualitative research (Bott & Tourish, 2016). CIT has also been described as retrospective story-telling of actual events (Sharoff, 2008). The technique allows for open-ended response based on a participants' experience of a specific event (Sharoff, 2008).

CIT focuses on factual reports, rather than opinions of behaviors that made a significant contribution to a specific event (Woosley, 1986). Participants make judgements regarding effective or ineffective behaviors and actions relating to a specific event (Sharoff, 2008). Then, participants must decide if what was observed is considered significant in terms of contribution (Sharoff, 2008). Consistency throughout the data collection process is essential and a detailed set of procedures must be developed and consistently followed during the data collection process of CIT (Flanagan, 1954, Stitt-Gohdes et al., 2000).

Figure 4 describes the five essential steps developed by Flanagan (1954) of the CIT process. The paragraphs that follow explain how each step will be implemented in this study. Over time, enhancements made to the CIT method, referred to as Enhanced Critical Incident Technique (ECIT), increased credibility and provided context of the studied event (Butterfield et al., 2009). This investigation will employ Flanagan's (1954) CIT and will include the enhancements outlined in ECIT to understand the critical events, incidents, or factors that enhance or hinder leaders' implementation of disruptive innovations in secondary schools (Butterfield et al., 2009).

Figure 4

Flanagan's Critical Incident Process



Note. This figure illustrates the five-step process of Critical Incident Technique as described by Flanagan (1954).

The researcher utilized the Critical Incidence Technique (CIT) in the research process to understand the critical events, incidents, or factors that enhance or hinder the superintendents' implementation of innovation in public schools. CIT is a series of processes for gathering firsthand accounts from real-world situations to address practical issues. CIT has been extensively used in qualitative, inductive research. CIT is characterized as relaying real occurrences in hindsight (Brown, 2022). This method enables participants to give an open-ended answer on their experiences with a particular event or a series of events. Instead of focusing on opinions of actions that significantly contributed to a certain occurrence, CIT focuses on factual reporting (Viergever, 2019). Participants assess whether certain behaviors and activities in relation to a certain occurrence were effective or ineffective. A comprehensive set of processes must be designed and regularly followed during the CIT data-gathering process to maintain consistency across the entire data-collection process (Viergever, 2019). The following section describes each step utilized in this study.

Research Design

The researcher employed qualitative data collection methods in this study. The qualitative methodology allows for the analysis of non-numerical data; aiming to better understand people's thoughts, feelings, and experiences (Toyon, 2023). This allows for deeper insight into the phenomenon being investigated, helps develop hypotheses, and allows for further insight into the phenomena under study. In this study, a qualitative methodology was chosen as the most

appropriate methodology, because the researcher sought to investigate the experiences and perceptions of superintendents regarding innovation in public schools. Qualitative research is essential in answering the ‘how’ and ‘why’ research questions (Toyon, 2023). The core of qualitative data involves open-ended questions posed to the participants during interviews to record people’s experiences qualitatively and thoroughly. This helps to explain processes and patterns of human behavior that may be difficult to quantify, as the participants explain how, why, and what they are thinking (Tenny et al., 2022). Without qualitative methods, these aspects would be difficult to measure.

Role of the Researcher

Before starting this project, the researcher possessed a basic understanding of the various dynamics at work during the design, planning, and implementation phases of innovation adoption and implementation. As a school leader, I know the distinction between success as determined by standardized test results and success as determined by relevant, real-world learning opportunities. I have also seen how internal and external influences impact the choices made for organizational procedures and the kinds of learning experiences provided. This influence can occasionally lead to practices at odds with personal views. A researcher participating in CIT interprets and expresses the participant's intended meaning based on a single account. Each person has a distinct viewpoint, and by examining significant situations from various angles, it can be possible to obtain knowledge that might impact the decisions made by leaders when implementing innovations. The CIT method assisted in helping the researcher understand the scope of the superintendent’s responsibilities and the impacts of decisions while introducing innovations in public schools.

General Aims

The major objectives of this study are to identify the causes influencing educational innovation and investigate how superintendents foster innovation in their school divisions. Other research goals include: exploring the definition of innovation and the methods used by public school division leaders to promote it, examining how public school superintendents view the aspects and qualities of innovation, determining the factors that superintendents of public schools believe are responsible for innovation in education, investigating how public school superintendents lead and oversee innovation in their respective divisions, examining the difficulties and impediments that leaders face while attempting to lead innovation, examining the strategies and methods employed by administrators in public schools to assess the success of the innovation initiatives, and to pinpoint the most effective procedures for directing and facilitating innovation. The results of the study will be used to identify the best practices for managing and guiding innovation in public organizations.

Plans and Specifications

The purpose of the plans and specifications step of the CIT process is to clearly define the group being studied as well as to provide specific instructions to all parties (Flanagan, 1954). To maintain objectivity, observers must follow the same set of criteria (Flanagan, 1954). Flanagan (1954) established the following specifications to clearly communicate to individual observers prior to the start of data collection: the situations observed, relevance to the general aim, extent of effect on the general aim, and persons to make the observations. To establish relevance to the general aims, the general aims statement will be reviewed with individual observers. Observers will be directed to include observations of behaviors or actions that they believe influenced the described innovation, either directly or indirectly (Flanagan, 1954). Next, the extent of the effect

on the general aim will be reviewed. The following definition from Flanagan (1954) was utilized to assist participants in making decisions regarding how important an effect is: “An incident is critical if it makes a significant contribution, either positively or negatively, to the general aim of the activity” (p. 4).

Development of an interview protocol occurs during this stage to ensure consistency across interview sessions (Butterfield et al., 2009). Interview questions sought to obtain information about specific innovations, the definition of innovation, and steps taken to build an innovative culture within the school division (Butterfield, 2009). Table 1 describes the categories, question stems, and supporting literature used to construct the interview format (McIntosh & Morse, 2015). A review of literature was conducted to identify the key areas and categories represented in this study (McIntosh & Morse, 2015).

Table 1

Construction of the Interview Protocol

Category	Item No.	Scheduled Question Stem and Probe	Reference for Category Development
The concept of innovation	1	Can you describe what innovation means to you in the context of schools and education?	Sterrett & Richardson (2019)
Formulation of innovative ideas	2	Are there examples based on your definition of successful innovation that have happened recently in the school systems? Who formulated the innovative idea and who implemented it?	Lambriex-Schmitz et al. (2020)
Implementation of innovation	3	Are there challenges that you have faced when formulating and implementing innovative strategies to be used by the school? What are some of these challenges? How do you mitigate these challenges?	Sterrett & Richardson (2019)

Supporting innovation in public schools	4	Tell me the form of support that you provided to ensure innovation was implemented in the district public schools. What support do you provide to principals, teachers, and students who have innovative ideas?	Penuel (2019)
Measuring innovation	5	Once you have supported innovation, do you track back to measure whether the implementation of the innovation was a success? How do you measure the success of innovative strategies? What are some of the expectations once the technology is successfully implemented in schools?	Watson et al. (2022)
Roles played by the superintendents	6	What measures have you provided to teachers to ensure they utilize technology in the classroom to advance their professional careers? What is your perception of teachers' freedom to use technology in the classroom? Are they free to do so or do they feel constrained?	Sterrett & Richardson (2019)
Support	7	Do you encourage teachers and principals to take risks in the classroom to improve student learning?	Hayes (2019)
Involvement of other stakeholders	8	What is the perception of other stakeholders in encouraging innovation in district public schools?	Sterrett & Richardson (2019)
Equity	9	How do you ensure that the innovative strategies implemented in the school benefit all the students?	DeFeo & Tran (2019)
Community involvement	10	Do you involve the community, including the parents, in the innovations? What role do you play when the community and the school board are unable to find a middle ground concerning innovations?	Sterrett & Richardson (2019)

Innovation in education	11	What do you think are the benefits of innovation in schools? What do you see innovation in public schools being in the future? Will it help solve some of the problems in public schools currently?	Sterrett & Richardson (2019)
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Participant Selection

The researcher used purposive and convenience sampling methods to select the research participants. These methods were the most appropriate for participant selection based on the interviews. Purposive sampling is a type of non-probability sampling where the researcher chooses specific participants whom the researcher perceives will be able to help them answer the research questions and meet the study goals (Rahman, 2023). It is also called judgmental sampling because the researcher judges and determines the participants who will participate in the study.

Purposive sampling is advantageous for several reasons. First, it enables the researcher to apply various qualitative research designs to improve the quality of the research. Secondly, it allows the researcher to extrapolate data-supported generalizations because the researcher can choose the study group participants from groups that are representative of the entire population (Rahman, 2023). The purposive sampling technique offers a wide range of non-probability sampling opportunities including maximum variation, homogenous, typical case sampling, expert, and total population sampling techniques. Purposive sampling can also help the researcher save time and money because they can choose participants who are located at convenient locations for the research (Rahman, 2023). The purposive sampling process is also adaptive because the technique is flexible and allows room to make changes if necessary.

Purposive sampling also has several disadvantages that may limit its effectiveness. One of the potential limits is that the researcher can only draw conclusions that pertain to the specific group being researched. Purposive sampling carries with it the risk of researcher bias, and poor judgment on the part of the researcher could result in problems with the credibility of the research presented. Researchers may encounter challenges when called upon to defend their research due to the representative nature of the selected sample, and readers of the research may be uncertain as to how the researchers achieved the generalizations drawn.

Convenience sampling is a non-probability technique where the participants are drawn from a close population group, and the participants are usually the easiest to reach or contact (Mweshi & Sakyi, 2020). The convenience sampling technique also has various advantages that make it suitable for the research undertaken by the researcher. Convenience sampling is affordable because the participants are close and easy to access. This technique also provides vast qualitative information concerning the phenomena under investigation. It saves time during the data collection process because the researcher can focus on specific subjects to help gain perspective on the phenomenon. Convenience sampling enables the data to be immediately available as the participants provide the appropriate information (Mweshi & Sakyi, 2020).

The convenience sampling technique also has several disadvantages. The results obtained from convenience sampling research usually do not represent the entire population. It is also difficult to replicate the results obtained from convenience sampling because the participants are specifically selected for the study.

For this study, the participants are superintendents who were selected using purposive sampling and convenience sampling to ensure that the school leaders involved were superintendents and that they would be easily accessible for the interview process. The fourteen

superintendents chosen were interviewed to gather data on their perspectives and experiences related to innovation.

Table 2

Research Study Participants

Superintendent	Gender	Years in Superintendency	School Division Size
Allison	F	5-10	35,001-50,000
Ashley	F	5-10	2,001-5,000
Melanie	F	10-15	2,001-5,000
Brad	M	5-10	2,001-5,000
David	M	1-5	2,001-5,000
Greg	M	10-15	2,001-5,000
James	M	10-15	35,001-50,000
Keith	M	10-15	5,001-10,000
Paul	M	5-10	2,001-5,000
Susan	F	1-5	0-2,000
Walter	M	1-5	2,001-5,000
Mitch	M	5-10	10,001-20,000
Robert	M	10-15	10,001-20,000
Timothy	M	5-10	2,001-5,000

Data Collection

CIT

CIT typically uses the remembered observations of surveyed participants for the data collected. The degree of information provided in the observations can be used to gauge the accuracy of the reported observations. The part of the CIT process known as the plans and specifications stage helps memory by defining the behavior to be recalled. Utilizing incident data that has been remembered, or recalling incidents, is another viable choice because it places little burden on observers. CIT uses four methods to gather data: individual interviews, group interviews, questionnaires, and record forms. The data used in this study was obtained through individual interviews. CIT aims to provide all study participants with the same degree of topic exploration. The CIT interview process is facilitated by the researcher using empathy, curiosity, and respect.

Interviews

In qualitative research, interviews often provide valuable information when questions are aligned with research goals (Leedy & Ormrod, 2016). Compared to quantitative research, qualitative interviews tend to be less structured (Leedy & Ormrod, 2016). When engaging in qualitative interviews the interview itself may feel like an informal conversation (Leedy & Ormrod, 2016). Interviews are, however, purposeful conversations (Bogden & Biklen, 2007). Preparing interview questions ahead of time using a semi-structured interview protocol—along with probing questions to be utilized as necessary—ensures that key information is secured during the interview process (Leedy & Ormrod, 2016).

Flanagan (1954) found that interviews produce reliable critical data. CIT is deemed appropriate when a researcher seeks to study recalled critical incidents identifying effective or

ineffective behaviors during the implementation of a specific activity (Flanagan, 1954). Semi-structured interviews are designed to elicit responses from individuals regarding a particular experience (McIntosh & Morse, 2015). Semi-structured interviews are semi-standardized, allowing the use of probing questions in conjunction with the prepared interview questions to seek additional clarification (Leedy & Ormrod, 2016). Participant responses during a semi-structured interview maintain a specific inquiry focus and are unable to be obtained through other methods, such as observation or unstructured interviews (McIntosh & Morse, 2015). However, semi-structured interviews are time-consuming and present an increased risk of bias as clarifying questions are permitted (McIntosh & Morse, 2015). Additionally, virtual semi-structured interview responses may not contain the level of detail that face-to-face interview responses contain (McIntosh & Morse, 2015).

For this research study, the time spent in each interview ranged from 35 to 65 minutes and were conducted via a video conferencing (Zoom) platform. Before the planned interview, participants were provided with an email confirming the day and time of the interview, the URL for the video conferencing session, and were asked to review and sign the research study informed consent form. Each interview was web-recorded and audio-recorded using the recording feature included in the video conferencing platform. Every recording was transcribed verbatim. Both the audio recordings and the transcription of the interviews are saved in a cloud database that the researcher has secured with a password.

Data Analysis

Data analysis is crucial in the research process because it bridges the distance between the raw data collected and interprets and extrapolates conclusions and implications that the research may have for future insight and practice. Data analysis includes defining the research

question, collecting the data, cleaning the data, analyzing the data, identifying limitations, and providing the results for future practice (Johnson et al., 2020). Qualitative data analysis differs from quantitative data analysis because the types of data collected in the two techniques differ. While quantitative data is mostly numerical, qualitative methods involve non-numerical and non-quantifiable data sets. Qualitative data analysis consists of various methods, including content analysis, narrative analysis, discourse analysis, thematic analysis, and grounded theory (Bennett et al., 2019). Content analysis identifies patterns that emerge from text and groups these contents into words, concepts, and themes. This technique is important to quantify the relationship between all grouped content. The narrative analysis focuses on the stories of research participants, enabling the researcher to summarize the outcomes of a focused case study (Tomaszewski et al., 2020). Discourse analysis is essential to understanding the political, cultural, and power dynamics in specific situations, and focuses on how people express themselves in different social contexts. In thematic analysis, the researcher tries to deduce the meaning behind people's words, which is accomplished by discovering themes in the text. These themes provide an in-depth understanding of the phenomena under study. In grounded theory, the researcher formulates a theory around a known case, and then performs studies on unknown cases to identify whether the cases can add to the original theory.

Research Team

The researcher established a research team to assist in categorizing data and determining the most significant instances. The research team consisted of the researcher and two research team members. The research team members were chosen based on their credentials, their willingness to commit to attending synchronous meetings a minimum of three times, and their willingness to conduct asynchronous activities as necessary. The research team members have

prior experience doing academic research and have successfully completed a qualitative course that was required as part of their academic degree. Both members of the study team are involved in various aspects of public education. The study team held multiple meetings during the research process. During the initial gathering, members of the research team were given an overview of the CIT technique, as well as the goals of the study, research questions, and relevant terminology. In addition, members of the study team participated in the calibration of critical incidents and agreed on one critical incident that occurred inside the chosen transcript. To safeguard the anonymity of the information, identifying information was redacted from the transcripts before they were distributed to the team. During the second meeting, members of the research team reviewed the coding of the calibration transcript. The development of certain themes and the identification of significant episodes were discussed. After completing the second meeting, study team members were provided electronic copies of each transcript. The research team engaged in open and axial coding while documenting their agreement or disagreement on important events and adding crucial occurrences for consideration. During the third and final meeting, the research team members reviewed the coding chart and discussed the points to consider.

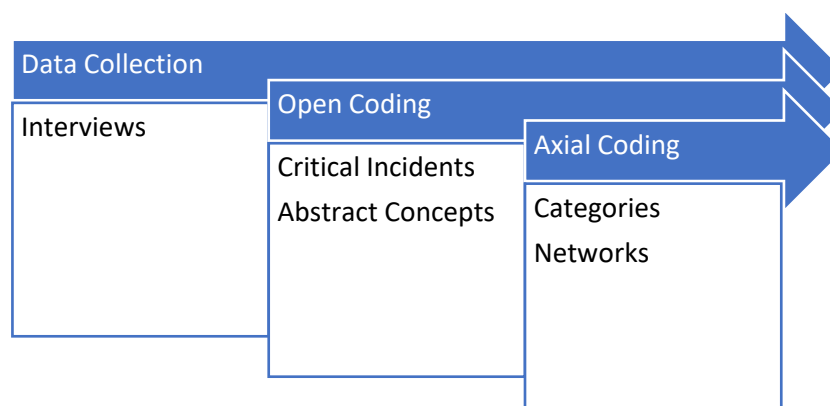
Analyzing the Data

The data was analyzed through a read, code, interpret iterative process. The data analysis software NVivo was utilized to organize the interviews and to code data. As illustrated in Figure 5, a combined open and axial coding approach was utilized (Nardelli, 2014). Through the process of open coding, abstract concepts associated with various incidents were identified (Nardelli, 2014). Incidents were classified into tentative categories for review (Corbin & Strauss, 1990; Flanagan, 1954). Relationships between categories were examined and linked accordingly

through the axial coding process (Corbin & Strauss, 1990). The iterative process of revising classifications and defining new categories and relationships continued until all incidents were classified (Flanagan, 1954). Categories were examined and refined—a process which included breaking categories into subgroups where appropriate—before reevaluating headings to ensure they communicated the classified incidents faithfully (Flanagan, 1954). Categorization is subjective and therefore it is a controversial component of CIT (Polit and Hungler, 1995). Following Lincoln and Guba's (1985) recommendations, the researcher engaged with research team members to identify any bias during data analysis.

Figure 5

The Research Process



Note. This figure illustrates the read, code, interpret iterative process.

Validation and Trustworthiness

In qualitative research, validity is determined by the caliber of the data and the consistency between the chosen research strategy and the intended objective of the study. The validation and trustworthiness of the research may be measured through its credibility, transferability, dependability, confirmability, and authenticity (Nassaji, 2020). These measures

are essential to ensure the validity and applicability of the research. It is critical that research be conducted using the correct procedures so that the results most accurately depict the phenomenon under study.

The credibility of the research determines the extent to which the findings can be considered accurate, actionable, and believable. Credibility refers to the degree to which the study results are accurate (Nassaji, 2020). To ensure credibility, researchers can use techniques such as triangulation. Triangulation involves the researcher utilizing multiple data sources to support a study's conclusions (Moon, 2019). For instance, in this research study, triangulation occurred as the researcher used interviews and observations during data collection and correlated the data to ensure credibility. The researcher also ensured the credibility of the research by using the member-checking strategy, which entailed disclosing study results to the participants and soliciting their feedback on validity. This technique ensures that the researcher correctly recorded the participants' experiences and that the data results represent the population under study.

Transferability is another method used to ensure the validity and trustworthiness of the research (Amin et al., 2020). Transferability is synonymous with generalizability, or external validity and is established by providing evidence that the research findings could be applicable to other contexts or situations (Amin et al., 2020). To ensure the transferability of the study, the researcher comprehensively explained the study setting, methodologies used in the research, the participants selected for the study, and how they were selected. Outlining these study specifics provides other researchers with information on whether they can repeat the research and obtain similar results. Dependability is also crucial to ensure that the research is valid and trustworthy. Dependability measures the consistency and stability of the study outcomes over time. The

researcher ensures that the research is dependable by outlining the methodologies used and ensuring the research process follows these methodologies.

This study's preliminary findings were discussed with practitioners to boost internal validity. To lessen researcher bias, study participants were included in the assessment and confirmation of data—a process commonly used in qualitative research to examine and confirm the veracity of results known as the member-checking approach. A copy of the interview transcript was provided to research participants for evaluation and comment. To ensure anonymity and reduce potential bias, all the study's participants were assigned pseudonyms. The researcher ensured that the study is valid and trustworthy by ensuring the research's credibility, transferability, dependability, confirmability, and authenticity.

CHAPTER 4: DATA ANALYSIS AND FINDINGS

This qualitative study utilized critical incident methodology to examine how superintendents drive the development of innovation in public schools. The research scope aimed to discover how leaders drive the development of innovation in public schools with a focus on work within the Commonwealth of Virginia. Fourteen public school superintendents participated in semi-structured interviews to help provide an understanding of key behaviors and actions necessary to lead innovation. The researcher and research team completed open and axial coding of the data. This chapter will describe the findings that emerged from the interviews and respond to the research questions proposed in Chapter 1:

1. How do school superintendents define innovation?
2. How do public school superintendents foster innovation in their school districts?
3. Are there specific steps in building an innovative culture?

Findings are organized by themes and sub-themes and are presented in the following order: defining innovation, the role of superintendents in leading innovation, methods for fostering a culture where innovation is possible, and challenges or barriers to innovation.

Theme 1: Defining Innovation

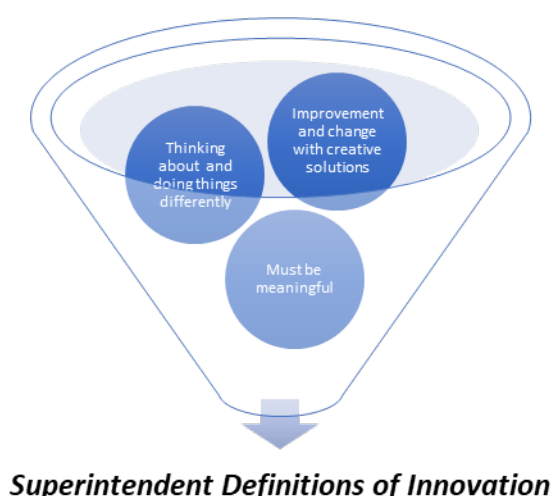
The study's findings highlight that innovation, contrary to common misconceptions, is more than introducing something entirely new or technologically advanced. In their attempt to define innovation in education, participants emphasized that, at the core, it is fundamentally about thinking differently, improvement through creative solutions, and, above all, meaningful. Technology is not a prerequisite; instead, innovation encompasses diverse approaches that challenge established norms and foster positive change.

Although, as Ashley noted, "a lot of people think of innovation [as] something brand new and super big, a huge thing" or, as David suggested, "something that has to be expensive".

However, Brad stated, "*it* doesn't necessarily have to have technology associated with it". Additionally, Brad explained, and as evident in the other definitions of innovation, many innovative projects "don't rely on technology at all", as "innovation has a broader lens and it's not necessarily something shiny and magnificent". From this broad definition of innovation, three sub-themes emerged through interviews with the fourteen participants.

Figure 6

Defining innovation from a superintendent's perspective



Thinking and Doing Things Differently

Instead of being "something new and shiny" (Ashley), innovation is more about thinking and doing things differently and developing new and creative solutions —exploring the unknown. It is about "exploring uncharted territory" (Allison) and "moving away from the way we've always done things" (Susan). By virtue of these findings from the interviews with leaders, innovation in education is comprehensively understood as a differential approach to doing things and thinking. As a result, innovation emerges as a multifaceted phenomenon with transformative potential and applicability across public education.

One of the key aspects of innovation is thinking differently. Melanie describes the essence of innovation by stating it requires "thinking differently and exploring uncharted territory". Creative and unconventional thinking is, therefore, highlighted as a fundamental aspect of innovation. As a result, innovation is best understood as exploring — venturing into uncharted waters— and exemplifies the need to challenge the status quo within the public education system. It is a search for innovative solutions beyond the familiar. This was accentuated by Susan, who emphasized the need to "move away from the way we've always done things" as a primary vehicle for innovation. This implies the imperative for change and the departure from conventional approaches in education and instead pursuing the ability to "[do] things differently". Innovation, therefore, introduces new approaches that adapt to the evolving needs of students and the education system writ large.

David offered a nuanced interpretation of innovation, implying that it need not entail "grand or revolutionary changes". Instead, he suggested that innovation could manifest as "incremental improvements and adjustments". This perspective aligns with thinking and doing things differently in a more subtle manner. Such an approach focuses on enhancing productivity and efficiency through continuous improvements. Similarly, Greg reiterates this finding by explaining that innovation is not limited to pioneering new initiatives but may also involve revisiting and revitalizing practices that have been overlooked and forgotten: "[Innovation] could be... a completely new initiative ... [or] the rethinking of something... it could even be going back to something we used to do ... lost sight of ...". This response reinforces the idea that innovation is mainly thinking and doing things differently through the acknowledgment that innovation is multifaceted and could manifest in different forms – either through embracing new ideas or through rediscovering past practices.

The concept of innovation in education, as revealed through interviews with superintendents, goes beyond mere novelty or superficial changes. Instead, it encompasses a profound shift in thinking and doing things differently. Innovation is characterized by creative and unconventional thinking, exploring uncharted territory, and challenging the established norms in the education system.

Improvement, Change, and Creative Solutions

Innovation is often associated with images of cutting-edge technology, revolutionary breakthroughs, and futuristic gadgets. However, the study participants refuted this stereotype and claimed that innovation is not limited to pursuing the latest technology. Instead, it is a multifaceted concept that embodies improvement, adaptation, and creative problem-solving to address the changing needs, opportunities, and challenges in the public education sector. Walter emphasizes the adaptability aspect of innovation. He states that innovation is most importantly about tailoring existing practices to meet evolving requirements: "[Innovation is] not so much what's the next best technology out there on the market, but how do we take what we're doing and adapt it and adjust it to meet the needs of our changing students!" This perspective underlines the crucial role of innovation in providing relevant, effective, and student-oriented practices in a dynamic environment. This position is reinforced by Mitch, who responds that the best innovation is essentially improvement: "What innovation means to me ... is that you've identified a problem or an opportunity to make things improve." This perspective emphasizes the core purpose of innovation as improving the existing status of something. It strongly ties to earlier assertions that innovation and progress are inherently interconnected. Thus, innovation can be viewed as a mechanism that drives public education forward, creates value, and tackles existing challenges.

David offers a comprehensive perspective concerning how innovation deals with process improvements:

Innovation means it could be anything. It doesn't necessarily mean bright, new and shiny. It means you take something and make it better... innovation means improvement, getting better, looking for creative solutions to everyday problems or to new problems that have come up.

Not only does this perspective explore the improvement and change involved in creative solutions, but it also positions innovation as practical. It is both continuous improvement and refinement as well as inventive solutions to present and emerging problems. Overall, there is a consensus that innovation is more than just about groundbreaking technology. It is a multifaceted phenomenon that captures adapting to change, identifying opportunities for continuous improvement, and employing creative solutions. Innovation as improvement and change with creative solutions could include refining existing processes to address new challenges and modifying existing practices to introduce new solutions. Thus, innovation is the vehicle through which improvement and change with creative solutions is driven.

The perception of innovation in public education challenges the conventional notion of high-tech advancements and futuristic gadgets. According to the insights from various superintendents, innovation transcends the pursuit of the latest technology; it embodies a multifaceted approach encompassing improvement, adaptation, and creative problem-solving to address the ever-changing needs and challenges in the public education sector.

Meaningful

The final key element in defining innovation is that it must be viewed as meaningful, suggesting it should transcend the mere pursuit of attention and novelty. Instead, it should serve a

genuine purpose and improve existing conditions. Greg stressed the value of broadening perspectives on innovation. In his view, innovation should not just be flashy or extravagant, "It could be just very practical and very real and very doable." This view promotes the ideology that innovation is not limited to grandiose ideas and gestures but may also include simple, day-to-day changes that create real impact. This idea also aligns with the perspective that meaningful innovation focuses on tangible improvements in the lives of those it targets. In referring to the meaningfulness of innovation, Susan poses the question:

[Innovation has] evolved. It really has ... [we must] think very critically about innovation in the context of is it [innovation] serving a purpose? I don't want to innovate just to be different or just to innovate, but are we actually doing something meaningful with the innovation?

This perspective places a premium on the practicality and purpose-driven nature of innovation. As opposed to pursuing innovation for its own sake, innovators should ensure that they aim at delivering tangible benefits or addressing real needs. This concept is further reinforced by Mitch who highlights the primary role of innovation as improvement. In her view, "the best innovations, are actually an improvement". This view contends that meaningful innovation is about substantive enhancements and not superficial changes and attention-grabbing tactics. According to Mitch, "the word innovation has developed a negative connotation among teachers because you say, hey, we're innovating. It means a lot of effort on their part and they don't know how long you're going to sustain it". When innovation lacks a meaningful aspect to it, it may lead to participants being burned out or having negative perspectives of the idea. Consequently, innovation must be about sustainable and practical changes that are both purposeful and impactful.

During the interviews conducted, there were several specific examples provided for meaningful innovation led by superintendents. For instance, Greg talked about working with staff to develop student success plans for each student. He stated:

We have student success plans where our students set their own goals if they're struggling with attendance, behavior or grades, which we call core performance. So, we call them 'ABC' plans. Students set their own goals. They have an adult mentor who they work with. And so we have that in place.

Walter provided an example of how, in his school division, they developed an innovative real-world learning program that spanned Kindergarten through 12th grade. This meaningful experience took advantage of geography in the division and provided outdoor learning opportunities for students. Walter explains:

The watershed experiences, getting our elementary, middle and high school students and staff all involved in that. So we have a program now where they're doing it from elementary school all the way through high school to graduation. Getting those hands on experiences at the elementary level, the middle school level, and in high school while we are also showcasing the geography of the region and James River. It has been incredibly meaningful for everyone involved and also impacted our community very positively.

Another example of a specific meaningful experience was provided by Paul. He described an alternative education program established through his leadership and in collaboration with multiple staff members and community members. He deemed this academy as an innovative project based on the size of his school division and other constraints the division faced at the time. Paul mentions:

[Name of Program], and we sought funding through, you know, when we were out there, we had access to river communities full of retirees who've come to retire. I mean, they're swimming in money and they're living out their last portion of life. And many of them are looking for significance through donations and investing in things. So, we got a lot of money from them and created this true alternative program that was based around meeting with flexible scheduling, flexible curriculum, a lot of community based learning experiences. And kids that didn't want to come to school would go over there and suddenly didn't want to ever miss school.

Ashley described the importance of centering innovation on student success. She stated, "Every decision needs to be made in the best interests of students. And I think innovation is in the best interest of students". She went on to mention:

If we're doing what's in the best interest of students, we're not staying status quo. We're constantly changing and constantly innovating to provide meaningful options for students. I think innovation is being very student focused and I believe it's important to constantly be improving for them.

In the realm of innovation, there is a prevailing emphasis on its meaningfulness, a concept reiterated by superintendents in the context of public education. This significance is derived from a focus on real-world applications, purposefulness, and substantial improvement. Meaningful innovation, as outlined in the study, goes beyond mere attention-grabbing novelties; it must be rooted in the objective of enhancing the quality of life, addressing authentic issues, and introducing tangible, sustainable improvements. Particularly in the domain of public education, this criterion is paramount, with consensus dictating that innovation should be

purposeful, practical, and dedicated to enhancing the overall quality of life by addressing genuine problems and introducing substantial, lasting improvements.

Theme 2: Role of Superintendents in Leading Innovation and Fostering Innovative Culture

In the realm of educational innovation, superintendents—as key drivers of the transformative process—embody a crucial role in leading their school divisions. Specific and necessary qualities to foster innovation emerged as findings from the interviews with research participants. These six findings are provided as sub-themes and include: communication and collaboration, leading by example, risk-taking, growth mindset, providing autonomy and empowering others, and creating the culture.

Figure 7:

Superintendents Leading Innovation and Fostering Innovative Culture



Communication and Collaboration

Each of the 14 superintendents interviewed referenced the importance of communication and collaboration as being essential components to the idea of fostering innovation within public education. Among other things, communication is the primary vehicle through which the "why" behind various initiatives is understood among stakeholders. Clear communication—regarding

the purpose and rationale behind changes—is essential. Ashley states, "[One must be] very intentional about explaining the why of these different things ... [including] the instructional side ... [or other procedural changes]". Clear communication helps stakeholders understand the objectives of the change and promotes alignment with desired outcomes—a crucial element of innovation. Communication must also be open and two-way to build trust. Open communication promotes perceptions of altruism as leaders introduce innovation, thus creating an environment where individuals feel valued and respected. In turn, this promotes innovation as Keith describes:

Without a doubt, because with the open communication and dialogue, those are the foundations of building the trust that you would need. So, people know that you're that you're approaching a particular problem and looking at a solution from an altruistic point of view, not as a referendum on their leadership or to denigrate or downgrade why or how things have been done previous, because they're still even if we come up with a new twist, it still doesn't mean that the old way was bad.

Collaborative problem-solving, by engaging a diverse group of individuals, is facilitated through communication to address problems of practice. Communication and collaboration set the stage for innovative solutions to complex challenges that could positively impact school division practices. Communication and collaboration are also seen as vehicles through which a shared vision, core values, and positive impact on others are shared. Effective collaboration hinges on a common understanding of organizational goals and objectives alongside a mutual understanding of team members. This combined knowledge ensures that a clear understanding of the different people making up the team could be leveraged for optimal outcomes. Paul explains this thinking:

You must have a place where you've fostered a keen understanding of, again, like, I know who I am, you know who you are. This is who we are as a division. I understand a little more about you and what makes you tick, and so I know how to motivate you. I know how to communicate well with you and once you have that kind of environment where everybody is sort of focused on a common set of core values, a shared vision and an environment where the expectation is that you're kind of always positioning yourself to have a positive impact on someone else and to help other people succeed.

The critical role of communication in leadership is further emphasized based on the issues that emerge when it is not present. When communication is missing the success of education leaders may be hindered. Communication, from the perspective of James, "will make or break you as a leader and is the number one thing that causes a principal or superintendent to not be successful". When communication is inadequate, James goes on to share that it "may present itself not being transparent, not sharing enough, not being clear, [or] not communicating enough" —all of which become pitfalls for the educational leader. Follow-up conversations and communication reinforce support for initiatives and ensure that communication has been clear. Not only is this consistent communication crucial for trust-building and promoting innovation, it also cements the positive communication skills of the leader to foster enabling environments.

Greg described the challenges of, and need for, strong communication across the organization:

If there is a problem, we've got a whole bunch of smart people to work on it and we get together to discuss what we can do to solve this problem. This happens in our weekly leadership team meetings – every Tuesday morning. It is essential that everybody works across departments to contribute to smooth operations. I say all the time that we need to

bust out of that silo mentality if we want to be our best as a school division. Our weekly meetings and group discussions are essential!

When talking about the importance of leadership communication to drive innovation, Melanie stated:

Um, you know, it was a lot of a lot of kind of follow-up conversations and communications to say, yes, we really mean this, and this is what we're going to engage in and we're going to support what you want to do in your classroom.

Moreover, David shared his thinking related to the need for consistent communication from the division leader:

It's just common, you know, repeatedly coming back to it. It's a topic on all of our Monday Cabinet meetings. Any updates? Where do we stand? Who do I need to contact? How can I support you? What have you done in the last week? And that way people know it's important. And you're also there to say if there's a gap to fill, I'm going to find a way to help you fill it right?

Overall, superintendents placed a high premium on effective communication and collaboration as a fundamental driving force for innovation within public education. This statement from James captures the necessity and need:

And what I find is you have to communicate more than you think you do in order to be successful. And even when you do that, you still have people who say you don't communicate well. So you have to really invest in communication because that will sink you quickly.

Effective communication and collaboration emerge as fundamental pillars for fostering innovation within public education, as emphasized by the insights from the superintendents.

Clear communication serves as the linchpin for understanding the purpose behind initiatives, promoting alignment, and building trust among stakeholders. Collaborative problem-solving, facilitated through communication, allows diverse individuals to engage in addressing complex challenges, leading to innovative solutions that positively impact school division practices.

Overall, the superintendents interviewed unanimously stressed the importance of investing in communication, both in quantity and quality, as a key driver for successful innovation in public education, highlighting the indispensable role it plays in building trust, enabling collaboration, and fostering a conducive environment for meaningful change and progress.

Leading by Example

Leading by example is understood as a powerful catalyst for innovation in public education. Walter underscores the value of the superintendent being at the forefront of innovation efforts. In his view, superintendents must actively show, do, preach, and live the changes they advocate. Leading the charge sets a compelling example for staff, teachers, and principals. This hands-on approach, as described by Walter, is effective by enhancing visibility and modeling the way:

I must be, I have to be, the one out there in front showing it and doing it and preaching it and living it, so to speak. I can't sit back here and have to tell my staff to do this without being out in front leading that. And that's what I like about the school division this size was, you know, 4000 students as I can be out there doing that, being in the schools, being seen by the teachers and by the principals leading some of this charge as opposed to maybe some of your, you know, larger divisions where they don't really get they don't see the superintendent in that capacity.

From another perspective, leading by example is viewed as the superintendent actively engaging in schools and classrooms to better know their teachers, understand different teaching styles, and build relationships with division staff. Greg indicates that "you have to roll your sleeves up and get in it with the people you serve". He believes this approach breaks down barriers and demonstrates the shared commitment to the established vision and mission. Being present and involved demonstrates that, as Paul states, "we are willing to do the work alongside our teams". It is also an opportunity for leaders to model innovative behavior. Leading by example allows superintendents opportunities to exhibit qualities such as risk-taking, creativity, questioning the status quo, and stepping out of their comfort zones. As a result, others are encouraged to embrace these qualities and integrate into the culture of innovation. Paul explains:

I mean, I think if you want people to innovate, you must be, you have to model that. And it starts, like I said, with creativity, risk-taking, being willing to question the status quo and the well-worn rut, if you will, and being able to challenge yourself, I think as a leader to model. You know, living in such a way that you're outside of your comfort zone and again, with a purpose.

Ashley offered this thought related to providing examples of leadership for staff:

You think of yourself as being always being a learner and a studier of what's new, what's out there - and being willing to change. I think you have to demonstrate a willingness to shift your thinking as the leader in order to be a change agent for innovation. Again, whether it's big or small, you as a leader have to be willing to know that things have to change and you have to serve as the example for others.

In thinking about leading by example with innovation, Greg stated:

It's like being a mad scientist in a laboratory. And I'm just going to try some stuff, right?

I'm going to try some stuff as the leader. And if it doesn't work, I'll chuck it, you know, and if it does work, let's see if we can build on it and do something different.

Greg also mentioned the importance of knowing staff members and offering reassurance that he, as superintendent, would be part of any innovation effort:

You know, I am in schools all the time. I am in classrooms. It's how I got to know our teachers so quickly. I know their teaching style. I kind of know something about them.

You know, it's really important to get to know people's names and things like that when you get into classrooms. So, I'm not asking you to do anything that I'm not going to do with you. You know, I'm going to get it. So that I think that kind of helps.

Walter offered this summary of his thinking related to leading by example:

Like I said earlier, I've got to lead by example and lead the charge. I've got to have staff on board for that and making sure we're all speaking the same language. I can't be saying something in one meeting and then my assistant superintendent of instruction go to another meeting of the same people and say the opposite. As the superintendent, it is my job to model the way and set the tone. I can't do it just sitting here in the office talking and I have to be out in front, um, actually doing some of these things we're talking about.

Leading by example emerges as a cornerstone for fostering innovation in public education, according to the insights provided. This involves active participation, direct engagement, and visible leadership by superintendents within the educational community. This approach includes not only advocating for change but also actively demonstrating it through hands-on involvement in schools and classrooms. Superintendents emphasize the importance of breaking down barriers by working alongside teachers, understanding their teaching styles, and

building personal connections. Leading by example also entails modeling innovative behaviors such as risk-taking, creativity, and questioning established norms.

Willingness to Take Risks

Willingness to take risks was considered a powerful driver of innovation in public education, serving as a critical facilitator and good practice. Allison emphasized the need to avoid being risk-averse:

You know, I think there you can't be risk averse and you have to model that. You have to model that. Learning is an ongoing process. We're all learners. We're learning together. And part of learning is when things don't have the intended outcome, how do we make it better?

This perspective sets the tone for a culture where continuous improvement and innovation are valued. Setbacks must be communicated as part of the learning process and as opportunities for improvement. Similarly, Robert offers this thinking around the need to take risks:

Well, I'm not afraid to fail. And I tell my folks, don't be afraid to fail. We learn a lot from that. Um, I want them to take challenges. I want them to think innovatively, to be trailblazers. Um, you know, all the catchphrases. I say I want us to be the beacon in the valley. So I want my people to strive to that and be out there and, and bring new things in that ultimately is benefiting our children. Um, so that support, that allowing them to fail, you know, encourage them to take risk.

Additionally, the idea that leaders should let employees know that trying new approaches is acceptable was shared during the interviews. The fear of punishment for trying and failing could stifle creativity and experimentation, Susan stated it was important to "...let employees know that it's okay to not do things the way you've always done it. And if you step out there to be

innovative and it doesn't work, I'm not going to slap your hand". Leaders who refrain from penalizing failed innovation create an atmosphere where staff are comfortable stepping out of their comfort zones and trying new things. Leaders must also be the change agents for innovation. David described creating an environment for innovation that included "a combination of comfort and risk-taking'. He believes this type of environment fosters creativity while risk-taking leads to the exploration of new and potentially groundbreaking ideas.

Part of the risk is also admitting when something is not successful and implementing corrective measures. Mitch stated:

If you're going to innovate, you have to be willing to say, I am not being successful and we are not doing as well as we could be. And then look around and find places that you can learn from. And that's what sparks innovation.

Consequently, risk-taking is not only in incorporating the proposed change but also eliminating unsuccessful ideas and systems. As a result, staff should be given permission to try something different lest they risk continuing to implement ineffective approaches. Encouraging educators to explore new approaches and experiment could lead to more engaging and effective learning experiences for students. Melanie stated the idea this way:

It is also about getting people fired up, about learning and encouraging staff members to take risks in the classroom. And that makes all the difference I think. And it sounds silly, but I think in some respects it was giving people permission to try something different. You know, it was take risks in the classroom. It's okay if you fail, but just try something different.

Finally, Susan reiterates that employees should receive assurances that they will not be penalized for using innovative methods: "... [give] people permission to try something different ... [to]

take risks in the classroom. It's okay if you fail, but just try something different.” This assurance creates an environment where educators can become risk-takers and utilize approaches that integrate innovation in student learning. Overall, risk-taking presents a central component of fostering innovation in public education.

Leaders must promote this mindset by modeling it and creating an environment where innovation is embraced to drive positive change. The perspectives shared that a willingness to take risks emerges as a vital catalyst for innovation in public education. The leaders stress the value of learning from failures and using setbacks as opportunities for improvement, fostering a culture of continuous learning and innovation. Furthermore, leaders must create an environment where trying new approaches is not met with punishment but instead with encouragement.

Growth Mindset

The responses from the study participants indicate that both having a growth mindset as the leader and espousing the importance of a growth mindset for staff are important pieces in the process of promoting innovation in education. Keith indicated that a climate where individuals are open to suggestions, feel supported in their work, and are unafraid to experiment with new approaches is valuable. A growth mindset aligns with continuous learning and improvement. As such, a growth mindset opens leaders and educators to try new things and are thus more likely to embrace innovative practices. Ashley talked about the importance of striving for improvement. She stated, "We consistently work on building that same belief, that we're always looking to be better." In her view, educators and leaders with a growth mindset are more likely to analyze data, consider alternative approaches and seek improvement opportunities.

Walter, reflecting on the watershed experience described previously, mentioned the need for a growth mindset in working with teachers to understand the value of the project. He stated:

It took us a year or so to get the buy-in from all the teachers. Because they didn't, I don't think, see the value. And I'm trying to help them realize you could do this kind of project through any content – having teachers get their hands dirty and seeing students with lightbulb moments – helped us grow the idea that it can really work.

Allison recounts being influenced by the growth mindset to create spaces and opportunities for innovation. She explained, "...it's one thing to create spaces and opportunities for it – understanding that it's messy and can bring challenge, I think you have to be willing to embrace that and be forgiving and understanding." This perspective incorporates the unforeseen challenges that often arise with innovation and that may require a growth mindset to view challenges and failures and opportunities for learning, improvement, and growth. In an educational setting, therefore, the growth mindset prevents the leader from recoiling after failures. Similarly, it is the growth mindset that helps leaders recognize the need for change and share that need with staff. James mentioned:

Yeah, I think what I have learned is the first thing that you have to do is you have to help people see that there's a problem. So, when you're talking about ways, because it's much easier to do school the way that you've always done school - let's just do what we've always done. And by the way, it's easier, you know, to do it that way. But you really have to get people, educators and leaders to see that there's a problem. Houston, there's a problem. You know, what do we need to fix or what we need to change?

Helping staff see the problems to be addressed and the need for improvement is a facilitator of innovation since it introduces the growth mindset and generates reception to change and innovation. This mindset helps leaders create a climate where new ideas are welcomed, challenges are viewed as opportunities, and continuous improvement is the primary objective.

Ashley described her thoughts on the need for growth:

Part of our culture reset here was talking about that growth mindset and how we take chances. We look at data, we analyze different things, we consider our needs, how can we be more efficient? What piece are we taking off teachers to allow them to be more efficient and more effective?

Ashley also shared, "I think building that same belief in your staff, whether it's my central office staff or through my principals and teachers and other folks that we're always looking to be better." Greg explained, "Again, whether it's big or small, you as leader have to be willing to know that things have to change and you have to be willing to look at that. Having that sort of growth mindset piece is critical." Walter offered this perspective around technology in education and the need for teachers and staff to demonstrate growth in their thinking:

Changing the mindset of teachers and how they teach. Not what they teach, but how they teach. Um, a big issue we're facing right now is I think technology is great and Chromebooks are great and canvas pages are great and you can sit there and do a great canvas lesson on canvas and they (students) can sit there and do the work, but is that really innovative and engaging instruction? And I would venture to say it's not.

In promoting innovation within education, cultivating a growth mindset—both among leaders and staff—emerges as a crucial factor. The responses from superintendents underscore the significance of embracing continuous learning and improvement. This mindset encourages leaders and educators to try new things and adopt innovative practices. The consensus among superintendents in the study is that a growth mindset creates a climate where change is embraced, challenges are met with resilience, and innovation becomes a natural outcome, permeating every level of the education system.

Providing Autonomy and Empowering Others

Providing autonomy and empowering others places the superintendent in a role as facilitator of innovation. Allison shared, "There is a need to grant latitude and leeway to teams working on innovative initiatives." This allows space for creativity to flourish. Empowering teams with a sense of autonomy allows them to explore unconventional approaches and solutions which are the bedrock of innovation. Autonomy is, therefore, an important facilitator of innovation since it enables educators and leaders to think beyond traditional constraints. Walter explained:

Sometimes you have to just, they want to be innovative, I think it is guiding them on what that's going to look like. More so than giving free rein. Sometimes we have to kind of give some freedom there, but also make sure we're kind of getting them in the direction we want to go and helping pave that course and opening the road up for them to get there.

In his view, there should be a balance between autonomy and guidance. Whereas autonomy is valuable for innovation, it should be channeled effectively. As such, the superintendent gives opportunities for free thinking but places guard rails by establishing broader goals and vision for the educational establishment. Striking this balance enables innovation that remains on course and progresses toward established goals. Robert stated:

Um, I give my leaders a lot of autonomy to do that in their respective areas, and I support that. It's not without oversight. Don't get me wrong. They just don't go willy nilly and do whatever they want and it's not that, you know, you bring me ideas, we talk about it. If we feel like it's going to be beneficial for kids, then we'll try to put the resources to it to make it happen.

In this view, autonomy is also coupled with responsibility and oversight such that leaders can take calculated risks in implementing innovation. At the same time, it promotes accountability for actions and outcomes during innovation. This, therefore, demonstrates a combined model of autonomy and responsible decision-making as a driver for innovation culture in public education. Additionally, granting autonomy to schools should be balanced against the needs of the school district. In this sense, autonomy should not lead to fragmentation within school districts but promote the more significant goals of the district within the institution.

Autonomy provides teachers with a say in the decision-making process. According to Paul, "Giving teachers some say in what's happening is another way to increase buy-in or improve their mindset about it [innovation]." Teachers provide critical perspectives as stakeholders directly involved in educational processes. Autonomy offered to teachers generates buy-in for innovative opportunities to flourish. It is, therefore, a crucial element. Ashley describes the autonomy and empowerment of others in this way:

Giving, I think, schools some autonomy to be innovative and be creative and think of out-of-the-box solutions, but still maintaining sort of that ideal that we're one team and we're one division. We have to work in tandem in order to move where we want to go.

Empowering others by saying "yes" clears a path for those who intend to try something new. This is something that Melanie identified as being a fundamental aspect of her job: "I always believe my job is to say yes ... when there's something that somebody wants to try or do, I believe my job is to say yes. And that involves clearing a path." She recognizes innovation often will require resources and she describes her role as empowering educators through providing the necessary supports. Additionally, Mitch explains:

Our role is to get to yes. With people that are doing the work and come to you, you have got to create an environment where people are identifying problems and identifying solutions and coming to you or coming to your staff and saying, hey, you know, I've got this great idea.

This empowerment culture allows individuals to produce their ideas for innovation. In turn, this creates a sense of ownership and responsibility during the innovation process. Collectively, these thoughts demonstrate the value of empowering others in the innovation process. Educational leaders empower others by encouraging them to contribute ideas, identify problems, and propose solutions. Moreover, they provide the necessary resources and support as well as nurture the spirit of continuous learning to facilitate innovation.

In an example of developing an empowerment culture, Brad explained a summer learning program for students that was innovative for the division he leads:

So, we developed with teachers and with staff something called [Name] that is a summer learning program. And it really is project-based, service-learning based with an emphasis on math and reading thread through it based on our data. The teachers really create the content and that's kind of where we're trying to drive to is the teacher as the leader in this piece. And we did it during the pandemic. We're able to utilize some of our ESSER funds and as a proof of concept, stand it up K-12 and then build on it each year. So this is year three. And I go from being like the leader of it – to having it be run by some of our admin interns who need leadership experience.

Fostering a sense of autonomy and empowerment provides support for innovative processes to occur. Brad mentions, "So for me, it's always about learning and creating and connecting and doing things so that I can keep pushing people. And that spirit of innovation

circles through the organization..." Robert states that "empowering leaders is also a major way of supporting others." He explains that "by setting goals, communicating a vision, and providing a strategic vision" staff members are empowered to take steps in the innovation process. When integrated into the public education system, autonomy and empowerment incorporate beneficial practices and catalyze innovation. This gives latitude to stakeholders in the education system to take calculated risks, think creatively, and contribute to continuous improvement.

Empowering others and providing autonomy stand as essential drivers of innovation in public education. Autonomy, when coupled with oversight, allows leaders to take calculated risks, promoting accountability for outcomes. Autonomy also extends to teachers, giving them a say in decision-making processes, thereby increasing their buy-in for innovative opportunities. The importance of empowering others by saying "yes," clearing paths, and providing necessary supports for innovative ideas all emerged from the interview data.

Creating the Culture

Creating a culture that fosters and supports innovation is considered a critical aspect of driving positive change in public education. The role of leadership in setting a clear vision for the school division is underscored by Robert: "You work as a team to set that vision for the school division and then you as the superintendent, help facilitate those leaders and those roles." The superintendent's responsibility to provide the necessary resources and support for innovation is, therefore, an integral part of developing the culture for innovation. David explains:

And then also giving people the latitude to make errors and go through trials and tribulations, you know, fostering that culture of inclusivity and a culture of it's okay to continue. It's okay if we're making mistakes as long as you're looking to take the next

step to enhance it, right? So, I would say that's kind of the role of the leader - I'm trying to develop people in that culture.

Allison discussed culture building like this: "I think you've got to create a climate that fosters and promotes innovation and change. And I hope that in some ways people in the school division see that as my role. I view it that way."

Openness to feedback is also considered a crucial part of creating a positive culture where people are not afraid to try new things. The superintendent has a role in supporting and expanding successful strategies. Keith explains the process this way:

Trying to be open to suggestions and open to creating a climate where people aren't afraid to try new things and implement new strategies and try to support them in those efforts.

And then when you find something that really works, then trying to expand it to others who might see benefit in it as well.

Actively listening to others and encouraging the mindset that solicits ideas from a diverse group of stakeholders is one of the ways to remain open to feedback. David shared:

So, I do think being out and truly listening. With the mindset of not looking to interject what you think can be done or what should be done to solve the problem. But questioning in a way and coming with a mindset that gets other people thinking and willing to give you ideas and building the trust with people that will bring you ideas. And then you take those and start talking about the merits of this and how we could make it happen.

This process demonstrates a culture where individuals are free to bring out ideas and leaders listen to and discuss these ideas based on merit and depersonalization of the decision-making process. In turn, this fosters innovation through collective input. Keith uses intentional methods

for seeking a broad range of feedback through advisory groups. He describes the value for the culture development:

I try to listen to everyone. I've got a number of advisory teams. I have a student advisory team, a parent advisory team, a faculty and staff advisory team. Go out to every school and spend the day on a listening tour just to hear any ideas that people may have about what can make the school better or the instructional delivery better or lunches better. It doesn't matter whatever they want to come and speak to me about. And then I take that information back to the leadership team and we sift through it and try to glean the good ideas out of it and use that in planning.

Creating a culture for innovation includes inviting feedback, seeking a variety of voices and opinions, and rallying the staff around the collective vision. Melanie describes her role in this process, "I think it's setting the tone and the vision. It's all a collective effort and a team effort. So, you know, my job is to build the culture, support the work and get the resources".

Robert expands on this ideal:

You work as a team to set that vision for the school division and then you as the superintendent, help facilitate those leaders and those roles. And then more importantly, it's my role as a superintendent to provide the resources that my team needs to make those come to fruition.

Greg describes an intentional culture building question he asks in all leadership interviews for positions available in his school division:

Tell me about a time you led a project from start to finish. What obstacles did you encounter and how did you overcome them? So that's kind of like a, you know, a culture and mindset that we try to instill here.

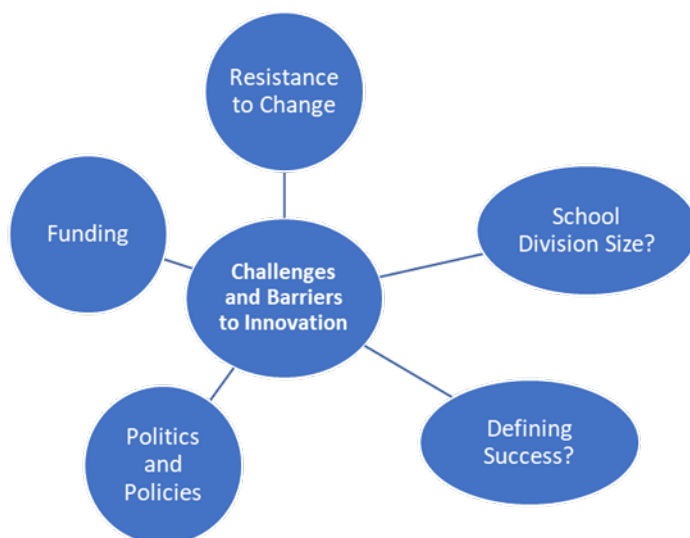
Walter discussed a programmatic example of culture development for his school division that included a focus on re-engaging all aspects of the community in schools. This program was necessary for the division as it relates to state accountability and chronic absenteeism. He shared:

We did a community-wide focus and it was called Show Up [Name]. We tried to get our kids to show up because of attendance, our parents to show back up in school for events and meetings and our community re-engaging with the schools. It was also about how we can better show up for our community as well. It was a partnership between us, our education foundation, a local nonprofit, and we kind of worked together to push this initiative out. And this year we're going to be doing 2.0!

Creating a culture of innovation within public education is a pivotal driver for positive change, according to study participants. Leadership plays a crucial role in this endeavor, with an emphasis on setting a clear vision for the school division. Openness to feedback is vital, encouraging a mindset that values diverse perspectives and ideas. This inclusive approach fosters a culture where individuals feel free to share ideas, creating a collaborative environment for innovation. The superintendent's role involves not only setting the tone and vision but also providing the necessary resources to turn innovative ideas into reality. Overall, these strategies contribute to a culture where innovation is nurtured, collective efforts are valued, and resources are dedicated to transforming visions into actionable initiatives.

Theme 3: Challenges and Barriers to Leading Innovation

Superintendents play a pivotal role in fostering innovation within educational settings. The study identified several challenges hindering innovation. The challenges included: resistance to change, funding, politics and policies, determining and measuring success and the size of the school division.

Figure 8:*Challenges and Barriers to Innovation***Resistance to Change**

A primary challenge for leaders trying to foster innovation was described as resistance to change. Walter explained the need for "changing mindsets" as the most difficult part of innovating. Melanie added, "educators sometimes get very comfortable in (...) what they experienced and what is comfortable for them" and leaving that comfort zone is difficult. These comments related primarily to teachers, who are often, as Walter mentions, "going to teach the way we were taught". This resistance is also more broadly applied to educational stakeholders. Greg declared, "normal people don't like change". He went on to state that his challenge with resistance was "breaking down a mindset of being willing to take that extra step, to think about something in a different way".

Deeply ingrained traditions resist the alteration of established practices in public education, which could impede innovation. David stated, "Teachers really don't like change and sometimes, breaking the mindset is hard—particularly if you've been in only one place and you're really comfortable doing it one way." Though a challenge for leaders, two participants

described a way forward. Greg explained, "...we are always going to face resistance with change in schools and the way to get past that is to find some quick wins so they (teachers) can see what you're attempting to do as beneficial to them." James described the challenge with resistance and the way forward as:

It's much easier to do school the way that you've always done school because we've all experienced that. We're comfortable with that. Let's just do what we've always done. And by the way, it's easier, you know, to do it that way. But I had to realize, you know, it's change, it's different. And they're just people just have such a reaction to change. So, you have to go slow to go fast.

Resistance to change poses a significant challenge in fostering innovation within public education. Educators, particularly teachers, often find comfort in familiar practices, making it difficult to break away from established norms. Overcoming this resistance requires a delicate approach. The insights shared underline the complexities faced by leaders striving to innovate within educational systems deeply rooted in tradition and emphasize the importance of strategic, patient approaches to drive meaningful change.

Politics and Policies

The politics and policies within education also serve as a hindrance, or barrier, to innovation. For instance, the idea of bringing school board members along with the innovation is a crucial step that may help reduce barriers. The inherent politics within school boards could lead to resistance when members prioritize other things over pushing the envelope with innovation.

Timothy explained:

If you haven't brought your board members along on the importance of the innovation, because one of the things we find is board members would rather teachers be happy

doing as little as possible then, you know, pushing the envelope. And I've actually seen superintendent colleagues of mine lose their jobs because they were pushing innovation too fast.

James shared this challenge related to school boards:

Uh, certainly you have politics, you have board members right now who don't really, who don't understand the initiatives or innovations that are being put in place. I know we're talking about innovation, but the big ones now that we're struggling with are things like equity and books.

Ashley, echoing other study participants speaking about political and policy barriers to innovation, discussed scenarios during and after COVID:

You know, and for the first time, I had, you know, during the pandemic, we had board members who weren't supporting public education. You know, so then you have, you know, we're pulling our kids out of public school because we don't believe in what you're doing, etc. And now we're also, you know, we're attracting more and more people who are running for office to be disrupters and not supporters of the school division.

In addition to local school boards, several study participants stated concerns about the rigidity of public education in the PreK-12 environment and the challenge this creates for innovation. Allison stated:

So many systems that govern education are rigid and of course, you know, you think about from the accountability systems, federal, state and local level, you know, that's one of the reasons innovation is challenging. It is like we are hitting guardrails all the time.

Robert explained his concerns with the political and policy challenges:

You know, sometimes we're handcuffed. Superintendents are handcuffed with politicians. Sometimes I get frustrated with being painted with such a broad brush just because and something may have happened in one school division in the state and now all of a sudden we got a law. Now we all need to accommodate the law, so to speak. And that gets frustrating. And I think that limits some of the autonomy you have as a superintendent - because it seems like there's more and more regs [regulations] coming down from the General Assembly, more and more regs [regulations] coming down from the Department of Education.

Larger-scale innovation opportunities on the regional level are also challenging to navigate due to what are often the complex political landscapes and multiple jurisdictions involved. Collaboration across multiple school divisions, individual boards, and municipalities require significant coordination efforts and overcoming these logical challenges can present daunting challenges for superintendents. While the opportunity for innovation does exist, Timothy details the complexities:

The regional programs can be difficult just because there's a lot of cooks in the kitchen. You know, you're talking about, for instance three school divisions. So, you've got three superintendents, you've got three school boards. Each one of those programs has their own board of directors. And then you've got three municipalities, you've got a board of supervisors, the two city councils. Though everybody loves the consolidated regional programs because they're wonderful, no one wants to pay for them!

This limitation on autonomy is often frustrating for superintendents as their ability to lead and champion innovation is curtailed by political forces. Finally, as Mitch states, "there are people and forces in the community who don't necessarily believe in your vision." He goes on to

explain, "My primary job to is to help them believe and understand why it is important for our students and the community as a whole." Ashley comments, "It's been challenging, and I mean challenging in 2023 is far different than challenging in 2013. And the politics are just, you know, politics are politics anywhere but, you know, in a small town are rough."

Navigating the landscape of politics and policies within education presents a significant challenge to fostering innovation. Superintendents face resistance from school board members, who may prioritize maintaining the status quo over embracing innovative practices. The rigidity of educational systems, governed by federal, state, and local regulations, acts as a barrier to innovation, with superintendents often feeling handcuffed by political decisions. Overcoming these challenges requires superintendents to advocate for their vision, fostering belief and understanding among community members and stakeholders, despite the obstacles posed by political and policy constraints.

Funding

Limits on financial and personnel resources emerged as a constraint on the ability to implement innovative practices. Ashley mentioned, "We seem to have fewer resources and often times, many people must wear multiple hats and this hinders our ability to be innovative". James stated, "If you don't give them [teachers] the resources they need to be successful, innovative initiatives fail." Additionally, innovation often requires investment into training, new materials, and sometimes technology. Brad explained, "If experienced teachers observe that resources for a project or new idea are lacking, they may hesitate to embrace the change." Limited funding and finances present a persistent barrier to innovation in education. Robert described it this way:

So that being said, you know, sometimes we have a lot of grandiose ideas and we want to be new and innovative and do some creative things, but we're limited by some of the resources that we have. It can present a real hurdle to our success and planning.

Ashley also shared:

I would say a challenge is always monetary or financial, you know, because without, without it's just a natural part. There's probably always going to be some kind of additional cost to different ways of thinking through or trying to be innovative, whether that's, you know, tangible materials and supplies or whether it's resources through staff and things like that. So, to me, funding is always a barrier.

In summary, the idea of funding is considered a recurring challenge or barrier among superintendents as they grapple with leading and fostering innovation.

The limitation of financial and personnel resources poses a significant challenge to implementing innovative practices in education. The superintendents interviewed highlighted the hindrance caused by limited resources, leading to difficulties in providing necessary materials, training, and support for teachers. These constraints not only affect the ability to initiate new ideas but also impact the willingness of educators to embrace change. Grandiose ideas and creative initiatives often face hurdles due to financial limitations, with funding emerging as a recurring barrier for superintendents striving to foster innovation within their educational institutions.

Defining Success

Another challenge or barrier to innovation for superintendents stems from measuring the success of the innovation or project. There were a variety of perspectives and explanations when it came to measuring or evaluating. Allison stated:

Well, you know, it's new enough that I guess the verdict is still out. I mean, it's innovative. Whether it ultimately an innovative program, whether it ultimately yields the results we want it to, I think is still to be determined, though. It's off to a really great start. So, I mean, you know, looking at numbers of participants and, you know, are they sharing the experiences with others and, you know, encouraging them, you know. We do a lot of gaining feedback from those who participate in our career ladder programs and specializations and all of those things. So, I mean, all of those data points help.

Robert talked about gathering and reviewing data on the innovative preschool programming in his division:

Obviously, we always look at student outcomes as a measure of success for us. So we've got some pretty compelling data with our preschool program, some of the initiatives we put in there and how that's making a difference of closing the achievement gap in our preschools.

James, in an example of a high school innovation program his team developed, explained the success criteria or evaluation components that they used to determine success:

Well, one of the big things we did with that program was we identified student outcomes that weren't just being used Virginia. You know, we had to we had to give them the test. You know, we couldn't get rid of that, unfortunately. But so we had to have the test measure. But we measured the students on critical thinking, their writing skills, and their problem-solving skills. We actually measured the student progress. So those, to us, were better indicators of the program being successful for students.

Brad, in expanding on the innovative summer learning program in his school division, had a more difficult time explaining success criteria or a method for evaluating the experience. When asked directly about the method used to define success, he genuinely explained:

That is probably not our strongest component outside of following the kids through the year and looking at all the data points that they have. We talk about the students being engaged and participating. Or, in high school, we look at end-of-course test data.

However, I am not sure that really does a good job of helping to demonstrate success from the summer program. Measuring the innovation is an area that we need to continue our efforts to determine. It feels successful to me – though, that feeling is difficult to really quantify.

Measuring the success of educational innovation seems to pose a challenge or barrier for superintendents, as different perspectives and criteria come into play. Diverse approaches were noted from study participants—however, there was a noticeable lack of cohesion or specificity across the responses.

School Division Size

School division size emerged as a fifth potential barrier and challenge in leading innovation in public education. Findings from the study indicate that superintendents in larger school divisions expressed confidence in the accessibility of financial and personnel resources. However, coherence and understanding of the innovative efforts were described as more difficult to attain. Superintendents in smaller school divisions, on the other hand, expressed almost the exact opposite phenomena—personnel and financial resources were harder to access while the ability to communicate the rationale for innovation was simpler to accomplish.

As an example of the dichotomy, Allison, who serves what is considered a larger school division, explains:

So sometimes I have felt, you know, having conversations with colleagues in smaller division that divisions that they've been able to make headway that we can't. I often get frustrated because I feel like I'm stuck in this, you know, vortex of just building coherence across a large-scale organization.

Similarly, James, who also serves a larger school division, describes the challenge:

Now that I'm in [omitted], what you find in a larger district is you develop pockets of innovation that you have to work [to] bring to scale. You really find yourself starting, you know, with different parts of the organization doing different things, and then you work to help it grows and develop. And, it takes longer to get to that point because you have so many more players involved.

While the process of leading innovation likely takes longer in larger school divisions, superintendents expressed confidence in their access to resources. Allison stated, "as a large division, from a resource perspective, you know, it feels like we always have the people to get things done." However, Allison goes on to explain and re-state the challenge of innovating in a larger school division:

So for me, in a big system, I have to be really careful about coherence and building understanding and not letting something happen too much in a vacuum and that we're, you know, doing broad messaging and thinking about wide communication across audiences all the time because it's easy for something to spiral and go wrong because we haven't taken the time to build understanding across all of our schools and centers and so that that can become a little tricky. And it's not quick. It takes time.

Larger school divisions and the superintendents leading them have a greater challenge establishing a rationale or understanding for change. They generally have more layers and decentralized authority, which contribute to greater hurdles in coordinating efforts across schools. With the size, implementing changes and adaptation is not as rapid as in smaller divisions. As a result, larger divisions do not and cannot pivot as quickly.

The close-knit element of smaller divisions is likely to promote investment in innovative ideas. Timothy, a leader in a smaller school division, noted "if you have the commitment of the community and the people believing in what you're doing, they will support the idea with their dollars." Smaller divisions enjoy the benefits of assembling teams quickly and facilitating communication, which could be crucial when addressing issues or promoting innovation. Paul shared "when we when we want to talk through things or when something's going on, we just can very quickly pull a team together to do it." Speaking of leading and innovating in a smaller school division, Walter stated:

And that's what I like about the school division this size, you know, 4000 students, and I can be out there doing that, being in the schools, being seen by the teachers and by the principals leading some of this charge as opposed to maybe some of your, you know, larger divisions where they don't really get they don't see the superintendent in that capacity.

Superintendents are more visible and accessible in smaller divisions. Brad, who currently serves a smaller division and who worked previously in a larger one, shared:

The fun part about being in a smaller school division, that you couldn't do in a larger school division, is that it is easier for me to wrap my arms around the school division pretty quickly. I can be in all of my schools and I often am every day. So, if you want to

take an idea for innovation or initiative from idea to practice, you can follow it all the way through. So, I mean, that's fun. We often do it and it's definitely easier in a small place.

Greg provides a similar explanation about the benefit of leading a smaller division:

This year I decided that to ensure that we had consistency everywhere, I would conduct weekly meetings with every administrator at their school each week. So, we have [omitted] schools, so I can easily get these meetings in a week with principals. When I go to meet with them, we can walk and talk. We can go to classrooms, we can do observations, I can help them solve problems.

Finally, superintendents of smaller school divisions described having less challenges implementing change or initiating innovation. Melanie shared "I honestly believe that is a beautiful thing, leading a smaller school division, because we're not turning a battleship. We can see that something needs to be done and we can do it." James, who has served school divisions of varying sizes, states:

I have found in a small school division, you can turn the ship faster, you can innovate faster because you have a smaller population. The downside of that is you don't have people to help as much. So, you put more on your individuals. But you can turn a ship in a smaller district more quickly in a larger district.

Paul describes the nimble nature of leading a smaller division: "I've always said that one of the beauties of being in a smaller place is you're like a jet ski. I mean, it's not hard to turn something around or to go in another direction.' This is also partly due to there being less bureaucracy and control in smaller divisions, as well as because it is simply easier to pull a team together when

the need arises. There can also be more commitment and better communication due to the small team sizes, and it is easier to monitor progress throughout. Susan explained:

The plus for being a small school division is there are no hoops to jump through. There are no layers to jump through. The school board has entrusted me as superintendent to get things done. I have a lot of authority in that.

Whether their school divisions are large or small, all superintendents encounter unique opportunities and constraints when implementing innovation, and yet their leadership is essential.

The size of a school division plays a significant role in the challenges faced by superintendents in fostering innovation within public education. Larger divisions offer more accessibility to financial and personnel resources, but struggle with building coherence and understanding for innovative efforts across diverse schools and centers. Coordinating change becomes complicated due to layers of authority and decentralized structures. In contrast, smaller divisions, while facing limitations in resources, benefit from close-knit communities and streamlined communication. Superintendents in smaller divisions find it easier to implement change, adapt quickly, and garner community support. They enjoy the flexibility to innovate without bureaucratic hurdles, emphasizing the importance of nimbleness and direct communication in driving innovation. Despite these differences, superintendents, regardless of division size, are instrumental in navigating the challenges and opportunities related to innovation in education.

Summary

This study explores three research questions: 1) how superintendents define innovation, 2) how they foster innovation, and 3) the steps involved in building an innovative culture within their

school divisions. This chapter presented the findings from fourteen semi-structured interviews of public school superintendents. Open and axial coding were utilized, and three themes emerged: a definition of innovation, the role and way superintendents lead innovation, and barriers and challenges to innovation. These themes were further examined through the identification of sub-themes. Chapter 5 will further discuss the findings as they relate to literature, theoretical and practical implications, and opportunities for future research.

CHAPTER 5: DISCUSSION OF FINDINGS AND IMPLICATIONS

Overview

This qualitative study examined superintendents' roles in promoting and impacting school-division innovation with a focus on the Commonwealth of Virginia. The research study sought to answer the following questions:

1. How do school superintendents define innovation?
2. How do public school superintendents foster innovation in their school districts?
3. Are there specific steps in building an innovative culture?

The literature review presented institutional theory as a framework for understanding the phenomena of innovation in public schools. Fourteen semi-structured interviews and critical incident methodology were utilized to examine the behaviors and actions identified by the study participants. In this chapter, the study's findings are presented, the implications are discussed, and opportunities for future research will be presented.

Summary of Methodology

This qualitative study engaged fourteen participants, all current Virginia superintendents, in semi-structured interviews. The participants each represented a different school division across the Commonwealth. Superintendents varied in their years of experience and job experiences within education. Years of superintendency experience for participants ranged from one year to twelve years. Job experiences for the participants prior to becoming a superintendent included central office administrator, assistant superintendent, principal, and classroom teaching on multiple levels. Four of the participants are female, and ten are male. School division sizes of participants range from small: 0–2,000 students—to large: 35,001–50,000 students. Seven of the fourteen superintendents serve a school division with 2,001–5,000 students.

Participants were chosen through purposive and convenience sampling to ensure they were both relevant to the study and easily accessible. They were interviewed through ZOOM video conferencing. Each interview was audio and video recorded. The fourteen interviews were transcribed, and participants were provided an opportunity to review them for accuracy and provide additional clarification as necessary.

The data analysis followed an iterative process of reading, coding, and interpreting the transcripts. The software NVivo was used to organize the interviews and code the data. The process of data analysis started with coding the transcripts with detailed, descriptive codes in *NVivo 12*. As a result, at the end of this stage there were 170 codes that covered the content of the interviews. The next step involved trying to make sense of the data through reading the created codes and their content. The aim was to reduce the number of codes and ensure that they accurately describe the data, to eventually develop themes that would help to answer the research questions. To achieve this, the existing, descriptive codes were first organized into a ‘parent-child’ relationship, which is a term used in *NVivo* to refer to the hierarchical organization of codes in a group, and these groups were based on the judgment as to what topics the various codes represent. At this stage, the organization of codes did not mean trying to create themes, but rather trying to make sense of the data further by introducing any common-sense way to group the large number of codes to make them easier to understand and evaluate.

Subsequently, codes in each of the created groups were scrutinized to make sure that there are no duplicates, or codes which cover the same content but are worded differently (which is a common occurrence when doing line-by-line coding, resulting from the big number of codes which are difficult to remember). If these duplicates were found, they were eliminated by

“merging” two or more codes into one. At this stage some of the codes were also becoming more inclusive. As the result of the above processes, there were 88 codes left at that stage.

After this, the codes were scrutinized again, and their content was carefully read with the research questions in mind. Cross-case comparisons (comparisons between the different participants) and within-case comparisons (a careful analysis of the content of each individual interview) were applied to gain an in-depth understanding of the coded data and the develop the final set of themes that would help reflect the content of the interviews and answer the research questions. These themes were created by further moving the existing codes and groups around, merging codes and moving them to other, more relevant groups to finally form a set of key themes running through the data.

To ensure the validity and trustworthiness of the research, the study employed various strategies, including member-checking, triangulation, and transparency in study details. The researcher shared preliminary findings with practitioners to enhance internal validity and conducted member-checking to ensure the accuracy of recorded experiences. Additionally, pseudonyms were used to ensure participant anonymity.


As a study evaluating critical perspectives about the research phenomenon, the qualitative design was suitable as it captured the experiences, perceptions, and motivations of superintendents regarding innovation in public schools. The qualitative approach allowed for open-ended questions that provided more profound insights into the "how" and "why" of the research topic.

Summary and Discussion of Findings

The study's findings captured three significant themes from the qualitative interviews with superintendents: defining innovation, the role of superintendents in leading innovation, and challenges and barriers to innovation. Five findings emerged from the themes and will be explored more fully within this section and in comparison to the pertinent literature. Figure 9 provides the overview framework.

Figure 9

Crosswalk of Themes and Findings



Theme 1: Defining Innovation	<ul style="list-style-type: none"> •Finding 1: Must be Meaningful
Theme 2: Role of Superintendents in Leading Innovation and Fostering Innovative Culture	<ul style="list-style-type: none"> •Finding 2: Role Expansion for Superintendents •Finding 3: Interplay of Leadership Frameworks
Theme 3: Challenges and Barriers to Innovation	<ul style="list-style-type: none"> •Finding 4: Success Criteria? •Finding 5: Small Divisions>Large Divisions for Innovation

Theme 1: Defining Innovation

The study explored the concept of defining innovation in education. Contrary to popular belief, innovation is not limited to introducing brand-new technologies or extravagant changes. Instead, participants in the study emphasized that innovation is fundamentally about thinking differently, finding creative solutions, and bringing about meaningful improvements for the organization. Technology, although often associated with innovation, is not a prerequisite.

Innovation encompasses a variety of approaches that challenge established norms and promote positive change.

The superintendents highlighted that innovation involves thinking and doing things differently, exploring uncharted territory, and moving away from traditional educational approaches. Creative and unconventional thinking was identified as a fundamental aspect of innovation, leading to the development of new and transformative methods in education. Moreover, innovation does not necessarily entail revolutionary changes; it can manifest as incremental improvements, adjustments, or revisiting past practices. This understanding of innovation challenges the conventional notion of high-tech advancements and underscores the importance of adaptability and creative problem-solving in education.

Another aspect of innovation, as defined and identified by the superintendents, is the focus on improvement, change, and creative solutions. Innovation, as they shared, involves adapting existing practices to meet evolving student needs or community needs and identifying opportunities for continuous improvement. The superintendents emphasized the practical nature of innovation, discussing the importance of improving existing processes and seeking creative solutions to everyday challenges.

Finding 1: Must be Meaningful

The key finding that emerged from defining innovation is that the innovation must be meaningful. The innovation or innovative idea should serve a genuine purpose, improve existing conditions, and go beyond superficial changes or attention-grabbing novelties. Meaningful innovation, as described by the superintendents, focuses on tangible improvements in the lives of students and educators. It must be purposeful, practical, sustainable, and rooted in the ideal of enhancing the quality of education through sustained improvements.

While many classrooms in schools today look similar to those in the past, reform efforts have attempted to help promote growth (Cuban, 2013). Klein and Knight (2005) emphasize that successful innovation extends beyond mere adoption; it requires unwavering commitment, attention, and resources to ensure successful implementation and long-term benefits. Leaders must demonstrate patience throughout the process, as short-term productivity might be affected before achieving intended gains in the long run.

The superintendents in the study provided several examples of meaningful innovation in public education. These include initiatives like student success plans, real-world outdoor learning programs, and alternative education programs. These innovations are designed to meet specific needs within the community, involve collaboration with stakeholders, and provide hands-on, practical learning experiences for students. Cuban (2013) notes that current societal needs are different than the needs educational organizations were initially designed to address. The emphasis on student success and the constant improvement of educational options are seen as integral parts of meaningful innovation. Klein and Knight (2005) assert the need for leaders to be committed to achieving the long-term benefits of innovation and to devote attention and resources towards meaningful innovation. Therefore, they must acknowledge that the benefits are worth the effort.

Meaningful innovation, as highlighted by the superintendents, transcends “flashy” technologies and attention-seeking. Instead, it focuses on genuine purpose, substantial improvements, and the overall enhancement of educational experiences for students and educators alike.

Theme 2: Role of Superintendents in Leading Innovation and Fostering Innovative Culture

In the context of educational innovation, superintendents are key drivers of transforming processes within school divisions. This study identified six sub-themes within Theme 2 that outline the qualities necessary for fostering innovation in public education: communication and collaboration, leading by example, willingness to take risks, maintaining a growth mindset, providing autonomy and empowering others, and creating a supportive culture. These findings provide insights into the role of superintendents in leading innovation and cultivating an innovative culture within public education.

Effective communication and collaboration emerged as foundational elements for fostering innovation. Clear and transparent communication, coupled with open dialogue, is vital in building trust among stakeholders. Superintendents emphasized explaining the rationale behind initiatives, promoting alignment with desired outcomes, and creating an environment where individuals feel valued and respected. Collaborative problem-solving—facilitated through communication—enables diverse teams to address complex challenges and develop innovative solutions.

Superintendents play a significant role in fostering innovation by leading by example. Active participation, direct engagement, and visible leadership within schools and classrooms demonstrate a hands-on approach to innovation. By breaking down barriers, understanding teaching styles, and modeling innovative behaviors, superintendents encourage staff to embrace qualities such as risk-taking, creativity, and questioning the status quo.

A school division culture that embraces risk-taking is necessary for fostering innovation. The superintendents interviewed emphasized the importance of not being afraid to fail and viewing setbacks as opportunities for improvement. Encouraging staff to experiment with new

approaches and ensuring that failure will not be met with punishment creates an environment where creativity and experimentation thrive.

A growth mindset, both as a leader and within the staff, is essential for promoting innovation. A growth mindset fosters continuous learning, encourages trying varied approaches, and views challenges as opportunities for improvement. Study participants highlighted the need to help staff recognize problems and understand the necessity for change, creating a climate where new ideas are welcomed, challenges are viewed as opportunities, and continuous improvement is the primary objective.

Superintendents facilitate innovation by providing autonomy to teams and empowering educators to explore unconventional approaches. While granting freedom for creativity, superintendents strike a balance by establishing broader goals and vision, ensuring that innovation aligns with the district's objectives. Empowering teachers and staff members to contribute ideas and providing necessary resources and support creates a sense of ownership and responsibility during the innovation process.

Creating a culture that supports innovation is an essential aspect of driving positive change in public education. Superintendents play a pivotal role in setting a clear vision for the school division and fostering openness to feedback. Through actively listening to diverse perspectives and involving various stakeholders in decision-making processes, superintendents create inclusive environments where innovative ideas are valued. Additionally, providing the necessary resources and support for innovation initiatives is essential for turning visionary ideas into actionable projects.

Finding 2: Continued Role Expansion for Superintendents

Superintendents have seen their role grow, expand, and become more challenging in the last twenty years. Through identifying sub-themes necessary for leading innovation, this study found an intense increase in complexities with the role of superintendent. Ashley stated in her interview, "It's been challenging, and I mean challenging in 2023 is far different than challenging in 2013." Navigating the pandemic and coming out of the pandemic period has challenged these leaders to examine all aspects of the organizations they serve, requiring them to possess a diverse skill set and an in-depth understanding of many aspects of leadership and management. According to Björk et al. (2014), superintendents are expected to be adept communicators, collaborators, problem-solvers, and leaders who effectively manage complex organizations and promote student achievement. Effective communication is a crucial aspect of their role, allowing them to engage with various stakeholders, including parents, students, teachers, school board members, and community leaders (Peterson, 2014).

In the contemporary educational landscape, superintendents are expected to exhibit strong leadership qualities, excellent communication skills, critical thinking abilities, and the capacity to handle challenges swiftly and wisely (Em, 2023). Additionally, frequent stakeholder communication, as identified by Evans (2008), is vital for creating innovative and responsive educational organizations. As the demands on educational leaders continue to evolve, superintendents must adapt and cultivate a diverse skill set to effectively navigate the rigor of their roles and contribute to the success of their school districts.

Björk et al. (2014) introduced the concept of a multi-role for the superintendent, incorporating knowledge and abilities relevant to leadership theory, organizational change theory, motivation theory, ethics in management, human relations theory, diversity theory, and

multiculturalism. Auguste's (1986) research emphasizes the relationship between leadership styles and innovation adoption, suggesting that participative or transformative leadership approaches may be beneficial in fostering innovation within educational organizations.

This finding emphasizes the enormity and intricacy of the role superintendents play in public education. Further, there are insights offered by current superintendents concerning fostering innovation and driving progress. These include the need for clear communication, leading by example, encouraging risk-taking, promoting a growth mindset, providing autonomy, and creating a supportive culture. As evidenced in the theme and finding, superintendents who possess or work to build these skills could drive positive change and create innovative educational environments that benefit students, educators, and the broader community.

Finding 3: Interplay with Leadership Frameworks from Leithwood and Marzano and Waters

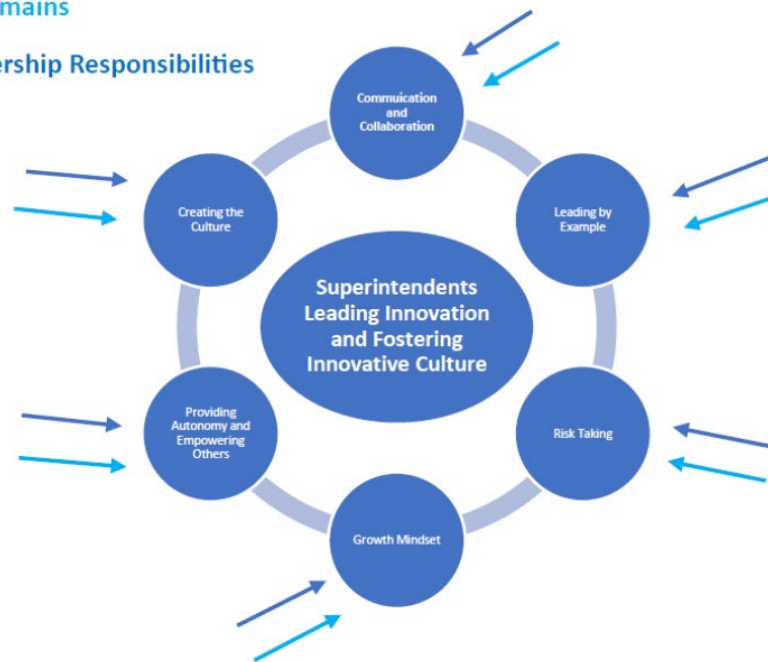
With the emergence of six sub-themes within the central theme of the role superintendents play in leading innovation and fostering an innovative culture, a leadership framework developed. Figure 10 illustrates the close interplay between the concepts identified in the study through superintendent interviews, the leadership domain model from Leithwood (2020), and the leadership responsibilities provided by Marzano and Waters (2009).

Figure 10

The interplay of Leithwood's Leadership Domains and Marzano and Waters Leadership Responsibilities with Leading for Innovation Research (see also Figures 2, 3, and 7)

Leithwood's Leadership Domains

Marzano and Waters Leadership Responsibilities



Leithwood and colleagues (2020) identified five domains of practice for successful school or division leaders: setting directions, building relationships, and developing people, developing the organization to support desired practices, improving the instructional program, and ensuring accountability. These domains are the foundation for superintendent leadership in driving innovation in the school division. Marzano and Waters (2009) identified six district-level responsibilities for successful school leaders: collaborative goal setting that includes all stakeholders, establishing non-negotiables for student achievement and instruction, aligning board support for goals, continuous progress monitoring, effective use of resources, and defined autonomy (for schools and principals). These responsibilities, like the Leithwood domains, provide a focus for the superintendent to lead innovation in their school division. In considering

the alignment across the frameworks, this finding provides a potential roadmap for leaders looking for a path forward to develop their innovation skills.

Theme 3: Challenges and Barriers to Leading Innovation

In studying the concept of leading innovation, the superintendents readily discussed the challenges and barriers they faced. Several items were identified: resistance to change, funding limitations, political and policy constraints, defining or quantifying the success of an innovation, and the size of the school division.

Resistance to change emerged as a primary challenge faced by leaders attempting to foster innovation. Educators, particularly teachers, often resist breaking from established norms, finding comfort and ease in familiar practices. Overcoming this resistance requires a strategic approach, with some superintendents suggesting finding quick wins to demonstrate the benefits of innovative practices. The study emphasized the need for leaders to recognize the ingrained traditions in public education and the importance of slow, deliberate efforts to drive meaningful change.

Politics and policies within the educational system were identified as another significant barrier to innovation. Superintendents faced resistance from school board members and encountered challenges due to the rigid nature of educational systems governed by federal, state, and local policies. Navigating these landscapes required advocating for their vision and developing belief and understanding among community members and stakeholders.

Funding limitations also posed a persistent barrier to innovation. Superintendents referenced the challenges caused by limited financial and personnel resources, hindering their ability to provide necessary materials, training, and support for teachers. These constraints not only affect the initiation of new ideas but also impact the willingness of educators to embrace

change. The need for more resources was considered a recurring challenge among superintendents.

Finding 4: Success Criteria

In considering the challenges and barriers faced when leading for innovation, some of the superintendents participating in the study seemed to struggle when asked to share how they measure the success of the innovative strategy and a measurement criterion for implementing the innovation (Watson et al., 2022). While there was consensus around the necessity for evaluating the efficacy of an innovation, there was far less agreement as to how success is determined. Bernolz (2011) discusses the struggle with evaluating innovation and suggests that leaders often need help in attempting to measure the process of the innovation versus measuring the success of the innovation. This finding emerged in the study as some superintendents pointed to the idea of “feeling” an innovation was successful instead of a method of formally evaluating success. Other leaders mentioned holistic student data as a measurement criterion for innovation success, though, in some cases, the student data was not an intended outcome of the project or program. Finally, there was also an admission from at least one participant that measuring the success of the innovation or evaluating the project's strength was a gap in their current structure and acknowledged the need for growth.

Finding 5: Small Divisions > Large Divisions for Innovation Leadership

Among the challenges and barriers faced in leading innovation, the size of the school division plays a significant role in the ability of superintendents to lead innovation in their communities. This sub-theme emerged as a finding in the study as each participant referenced some level of barrier or challenge relating to the size of the organization that they are leading. Ultimately, the study finds that smaller divisions provide more opportunities for superintendent

leadership that foster innovation. Leaders in both larger and smaller school divisions affirmed this finding.

In larger divisions, despite having increased access to resources, difficulties arise in establishing coherence and understanding for innovative initiatives across multiple buildings and numerous staff members. The complex nature of coordinating change in these decentralized structures is compounded by layers of bureaucracy or decision-making authority.

Conversely, smaller divisions, although occasionally constrained by resource limitations, indicated an ability to thrive due to their tightly knit communities and efficient communication methods. Superintendents in smaller divisions find it comparatively more straightforward to implement change, adapt swiftly, and gain community support. This highlights the significance of consistent and direct communication in driving innovation, as emphasized by superintendents in smaller divisions (Auguste, 1986).

According to Auguste's (1986) research, leadership styles that value relationships are likely to foster creativity in educational settings. People-oriented leaders are more likely to foster an environment that supports and stimulates creativity. They are more likely to value developing relationships with their staff members and are more open to working together and including others in decision-making. Relationship-focused leaders generally promote experimentation and the open exchange of ideas, both of which are crucial elements of innovation. Superintendents in smaller school divisions have ready-made opportunities to demonstrate people-centered leadership across the entire organization.

Morgan (2006) asserts that flexible organizational structures foster innovation, and smaller school divisions—because they naturally have fewer staff members—generally have more flexible structures with less bureaucracy. In addition to being more flexible in structure,

smaller divisions present the opportunity for more frequent stakeholder communication. Evans (2008) identifies this as a critical characteristic of innovative organizations.

The study shed light on a multitude of challenges superintendents face in fostering innovation within education. Despite these obstacles, superintendents have a critical leadership role in navigating through these barriers to drive innovation within their school divisions, no matter the size.

Theoretical Implications

This dissertation was developed to contribute to an understanding of how superintendents lead innovation in their school divisions and what the drivers for innovation in education likely include. The theoretical contributions of the findings provide a comprehensive review of the roles of superintendents in leading innovation in public education settings, drawing on a range of frameworks and scholarly contributions. The findings of the study emphasize the continually evolving responsibilities of superintendents, transitioning from traditional managerial functions to complex leadership and instructional roles, as outlined in the work of Kowalski (2005) and Björk et al. (2014). Kowalski (2005) expands the conceptualization of superintendents, defining them as teacher-scholars, managers, democratic leaders, applied social scientists, and communicators. Björk et al. (2014) further introduce the notion of a superintendent multi-role, emphasizing the diverse knowledge and abilities necessary for leadership, organizational change, motivation, ethics, human relations, diversity, and multiculturalism. This transformation underscores the demanding and multifaceted nature of their current roles, encompassing personnel management, budgeting, curriculum development, and community relations. The findings accentuate the critical role of superintendents as innovators, emphasizing their visionary

stance, their ability to set the tone for innovative change, and their pivotal role in fostering adaptability and a growth mindset within educational institutions.

These role conceptualizations align with Roger's (2003) Innovation Diffusion Theory, which highlights the value of effective communication, leadership, and social systems in innovation adoption and implementation. This theory provides a foundational framework, revealing the predictable patterns of innovation adoption influenced by attributes, communication channels, and change agent efforts. Within this framework, superintendents emerge as crucial change agents, leveraging their positions of power, influence, and expertise to foster an innovative atmosphere (Fernandez-Zubieta, 2021).

The findings of this study support the ideas presented by Devono (2009) concerning the innovation approach. This theory underscores the importance of a bottom-up approach, incorporating various stakeholders in decision-making processes to achieve alignment and promote the successful implementation of innovative initiatives (Devono, 2009). Task-and-people-oriented leadership styles are identified as optimal, fostering creativity, experimentation, and the open exchange of ideas (Auguste, 1986). Flexible organizational structures and frequent stakeholder communication further enhance innovation within educational settings (Morgan, 2006; Evans, 2008).

This work also contributes to theories on organizational innovation through diffusion networks, a leadership approach that can often enhance the spread of innovations (Slyke et al., 2007). Additionally, aligning individual and organizational visions is essential, as well as fostering shared visioning, reflective practices, and capacity building (Styron, 2015). Furthermore, the shift from theory-driven to practice-driven school reform initiatives emphasizes the practical application of innovative strategies in education (Clandinin & Connelly, 1998).

The study emphasizes the challenges of evaluating innovation, emphasizing real-time feedback loops, ongoing data collection, and iterative improvements, as well as the importance of diverse opinions, fewer silos, a culture of experimentation, and active idea sharing in fostering innovative environments (Bernholz, 2011). Effective superintendents are characterized by strong leadership, excellent communication, critical thinking, swift decision-making, and issue-handling capabilities (Em, 2023).

The study's findings support the intricate interplay between the identified roles superintendents play in leading and fostering innovation and the leadership domain model proposed by Leithwood (2020) and the leadership responsibilities outlined by Marzano and Waters (2009). Leithwood et al. (2020) identify five domains of practice for successful school or division leaders. These domains provide the foundational framework for superintendent leadership in driving innovation in the school division. Additionally, Marzano and Waters (2009) identify six district-level responsibilities for successful school leaders. These responsibilities, akin to the Leithwood domains, offer a focused approach for superintendents to lead innovation within their school division.

In summary, the theoretical implications of the study underscore the multi-layered roles of superintendents, emphasizing the integration of various theoretical frameworks, leadership styles, bottom-up approaches, flexible organizational structures, stakeholder communication, and the practical application of innovative strategies. Understanding and applying these theoretical insights are vital for superintendents leading innovation within the complex landscape of public education.

Practical Implications

In aligning these frameworks, this study provides a potential roadmap for educational leaders seeking to develop innovation skills. By integrating theoretical insights, leadership models, and practical responsibilities, superintendents can effectively navigate the intricate landscape of public education. Understanding the complex interplay between communication, leadership styles, stakeholder engagement, and organizational flexibility equips superintendents with the knowledge and skills necessary to foster innovation and drive positive changes within their school divisions. The findings of this study have significant practical implications, offering actionable insights for educational leaders striving to create innovative, adaptive, and growth-oriented educational environments.

Practically, the ever-changing role of the superintendent now includes innovation management within their school districts. Superintendents are encouraged to accrue requisite skills for innovation management, which include a growth mindset, empowering others, creating appropriate cultures, the willingness to take risks, enhancing communication and collaboration, and leading by example. This represents a fundamental role change from their initial responsibilities and reflects the changing needs of learners and public education stakeholders. This role becomes more complicated as the needs of students, teachers, and parents change. Additionally, their leadership role must be adapted to the challenges and barriers facing innovation in public education. These challenges remain the same over time but have changed in their presentation. Now, superintendents must contend with resistance to change, politics, existing policies, inadequate funding, and the particulars of school division size and their impact on innovation. Like leaders in business spheres, superintendents are now faced with unique challenges in public education as they navigate incorporating innovation within their practice

areas. Superintendents must acknowledge their evolving and multifaceted roles. In addition to becoming experts in learning and instruction, they must also become skilled communicators, collaborators, and effective managers. These roles reflect the changing dynamics of modern education, in which superintendents must manage and adapt to complex and diverse environments.

Policies and accreditation changes aimed at enhancing students' college and career readiness have reshaped the traditional educational norms. Superintendents, as key educational leaders, are urged to adapt their roles to incorporate innovation management into their districts. This necessitates acquiring a growth mindset, empowering others, embracing risk-taking, enhancing communication, and fostering collaboration. Additionally, superintendents must navigate challenges such as resistance to change, politics, funding constraints, and the impact of school division size.

The involvement of diverse stakeholders in the innovation process is crucial (Cillo et al., 2019). Professional organizations such as the Virginia Association of School Superintendents (VASS) and the Virginia Association for Supervision and Curriculum and Development (VASCD) offer valuable resources and examples of successful innovations, promoting policy understanding within a broader context. Engaging multiple stakeholder groups in developing a shared vision integrates reflective practices and capacity building into daily routines.

Incorporating student voices into innovation efforts within public schools holds immense practical importance, serving as a bridge between mere student-centered rhetoric and actual participation (Lodge, 2008; Cook-Sather, 2020). By intentionally integrating student voices, superintendents can amplify agency, enabling students to witness firsthand how their perspectives can drive positive transformations within their school divisions and communities.

The work of Lubelfeld, Polyak, and Caposey (2018) emphasizes the transformative power of flattening hierarchies and leveling playing fields by actively encouraging students to contribute their perspectives and engage in finding solutions. Their narrative underscores the significant positive changes that emerge when students are invited to be part of the decision-making processes, allowing them to play a crucial role in reshaping educational landscapes. Quaglia and Corso (2014) operationalize student voice as meaningful engagement in decision-making and improvement-related activities, emphasizing its role as an instrument of change. This intentional involvement not only empowers students but also enriches the overall learning experience, fostering a sense of ownership and pride in their schools, while simultaneously ensuring that educational practices align more closely with the diverse needs and aspirations of the learners (Lubelfeld et al., 2018; Quaglia & Corso, 2014).

Virginia's proactive approach to fostering innovation, including the Profile of a Virginia Graduate and the Virginia for the Learners Innovation Network (VaLIN), serves as a model (VDOE, 2015, 2016, 2019). Superintendents should align their initiatives with state policies and utilize state-funded grants and networks to enhance district-level innovation (VDOE, 2015, 2016, 2019). These initiatives empower schools to develop individualized, innovative programs emphasizing real-world connections and career awareness (VDOE, 2015).

The superintendent's evolving role demands versatile leadership. Superintendents must communicate effectively with teachers, parents, and other stakeholders and actively listen to and respond to criticism (Kesting et al., 2015). Collaborative leadership with school principals and boards is essential, emphasizing trust and a shared vision (Starr, 2019; Green, 2017). Superintendents must overcome challenges by involving others, acknowledging their limitations, and embracing the contributions of various stakeholders (Devono, 2009; Green, 2017).

Mentorship programs, for new leaders, can provide crucial support, foster knowledge exchange, and strengthen leadership capacity. Additionally, utilizing methodologies such as design thinking and case studies enhances problem-solving skills (Clandinin & Connelly, 1998).

Embracing a culture of innovation in education requires adaptive leadership, stakeholder engagement, and strategic alignment with state initiatives. As crucial change agents, superintendents must cultivate a supportive ecosystem, integrate student voices, and leverage state resources to foster innovative practices within their districts. By studying these practical implications, superintendents can navigate the complexities of the evolving educational landscape, ensuring that their districts are equipped to meet the diverse needs of students, teachers, and the community.

Limitations of the Study

As a qualitative study, the research has various limitations, including limited generalizability, bias, small sample size, information depth, and data analysis challenges. Qualitative data results in statistically insignificant data, leading to limited generalizability. The research will also be subject to inherent bias from the researcher. As the researcher formulates the questions, they may be inclined to elucidate specific responses from the participants, resulting in bias. The interviews may also be biased because the superintendents may provide acceptable responses to the public which may not reflect their practice. The sample size of fourteen superintendents is also small compared to the large population of superintendents and other school leaders. The small sample size results from the nature of qualitative research, which is time-consuming and resource-intensive and presents limitations on the scope of coverage. Analyzing qualitative data is also time-consuming and requires a high level of expertise to be completed.

Recommendations for Future Research

As qualitative research, the study identifies key themes and determinants of innovation success within the public education sphere that could be the subjects of future research. One of the emerging issues is leadership style and its impact on innovation management in public education. Different leadership styles among superintendents become evident as the responses are contemplated and could raise an important research area. Future research could evaluate how leadership styles among superintendents and other educational leaders influence the adoption and success of innovative initiatives in public education. Leadership styles could also extend to evaluating the role of autonomy, which has been identified as a facilitator of innovation. Future research could consider whether different levels of autonomy for teachers, administrators, and students influence outcomes in public education innovation. Funding, identified as a challenge in innovation success, could also be evaluated for how different levels of financial resources influence the implementation and sustainability of innovative practices in public education.

Future studies may also explore whether innovation differs across the various division sizes through a comparative study. This establishes, through empirical research, whether school division size impacts the implementation and effectiveness of innovative practices. Associated benefits and challenges could also be documented. Finally, there could also be a study into innovation assessment methods in public education. In the current framework, there needs to be more research documenting how innovation is assessed within education. Such a study provides a base framework for how innovation can be measured and assessed.

Conclusion

This study explored the multifaceted realm of innovation in public education, with a particular focus on the roles of superintendents in fostering and leading innovative practices

within their school divisions. Through comprehensive interviews with fourteen Virginia superintendents, this research provided insights into the definition of innovation, the pivotal role of superintendents in driving innovation, and the challenges or barriers faced in this process.

The findings presented challenge some of the conventional perceptions of innovation, emphasizing the complex nature of change. Innovation, as perceived by superintendents, extends beyond technological advancements, incorporating creative problem-solving, adaptability, and meaningful improvements. This study highlights that innovation is not a one-size-fits-all concept; it encompasses a spectrum of approaches, from incremental improvements to transformative changes, all aimed at enhancing the educational experience for students and educators.

The research findings contribute to the expanding field of educational leadership by highlighting the shifting role of superintendents from traditional administrative positions to innovative leaders. In practical terms, this research emphasizes the need for superintendents to adapt to their evolving roles, acquiring skills in innovation management, effective communication, and collaborative problem-solving. As leaders, superintendents must deftly navigate the landscape, advocating for innovative practices and fostering a culture of creativity and adaptability.

As the landscape of superintendents' role in innovation continues to evolve, this research serves as a foundational resource, guiding future studies and offering practical suggestions aimed at fostering innovation and enhancing the educational experience for all stakeholders involved.

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