How Professional Development Supported Principals as Instructional Leaders Within Two School Divisions in Virginia: A Qualitative Investigation

Rebecca B. Hall

Dissertation submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of
Doctor of Education
in
Educational Leadership and Policy Studies

Carol A. Mullen, Chair
Carol S. Cash
Charles L. Lowery
Tinkhani U. White

March 1, 2024
Richmond, Virginia

Keywords: *principal professional development, instructional leadership, benefits of principal professional development, challenges of principal professional development, virtual and hybrid principal professional development formats*

How Professional Development Supported Principals as Instructional Leaders Within Two School Divisions in Virginia: A Qualitative Investigation

Rebecca B. Hall

ABSTRACT

Principals have an impact on the teaching and learning that takes place in their schools. This research focuses on principal involvement in professional development (PD) to meet policy requirements while developing principals' skills to meet their changing roles to serve as instructional leaders accountable for student academic performance. The purpose of this qualitative study was to identify the types of PD principals and principal supervisors find most beneficial in developing principals' instructional leadership skills along with the perceived benefits and challenges of participating in PD designed for the principalship role. The secondary purpose was to identify the impact principal PD may have on instructional leadership practices and student achievement. The two research questions were: What types of PD do principals and principal supervisors find most impactful to developing principals' instructional leadership skills? What are the perceived benefits and challenges of participating in virtual, hybrid, and in-person PD specifically designed for the principalship role?

A demographic survey and one-on-one, semi-structured interviews were completed with five elementary school principals, four secondary school principals, and three principal supervisors from a rural and suburban school division in Virginia. Deductive coding was used to analyze the data from interviews to determine common themes, patterns, similarities, and differences. Nine findings were discovered, including principals engage in PD focused on instructional leadership skills and perceive that PD has improved instructional practices and

student outcomes, principals find value in networking and choice in PD, time is a barrier to participating in PD, and principal supervisors select and support principal PD opportunities.

The findings provide principals, principal supervisors, and providers of principal PD with guidance on how to design PD focused on developing instructional leadership skills. Practitioners can utilize the study to guide the design of effective PD sessions that leverage the benefits noted by study participants while overcoming the challenges. Division leaders may consider the findings when developing PD plans for principals based on the literature and perceptions of study participants. These practices will help ensure principals receive the timely, targeted PD they need to become instructional leaders with a positive impact on student achievement.

How Professional Development Supported Principals as Instructional Leaders Within Two School Divisions in Virginia: A Qualitative Investigation

Rebecca B. Hall

GENERAL AUDIENCE ABSTRACT

Principals have an impact on the teaching and learning that takes place in their schools. This research focuses on principal involvement in professional development (PD) to meet policy requirements while developing principals' skills to meet their changing roles to serve as instructional leaders accountable for student academic performance. The two research questions were: What types of PD do principals and principal supervisors find most impactful to developing principals' instructional leadership skills? What are the perceived benefits and challenges of participating in virtual, hybrid, and in-person PD specifically designed for the principalship role? One-on-one, semi-structured interviews with five elementary school principals, four secondary school principals, and three principal supervisors from a rural and suburban school division in Virginia were conducted. Findings including, principals engage in PD focused on instructional leadership skills and perceive that PD has improved instructional practices and student outcomes, principals find value in networking and choice in PD, time is a barrier to participating in PD, and principal supervisors select and support principal PD opportunities. The findings might guide how to design PD to focus on developing instructional leadership skills. Practitioners can utilize the findings to guide the design of effective PD sessions that leverage the benefits noted by study participants, while also working to overcome the challenges. Division leaders may consider the findings when developing PD plans for

principals. These practices will help ensure principals receive the timely, targeted PD they need to become instructional leaders with a positive impact on student achievement.

DEDICATION

I dedicate this dissertation to my family, especially my children Emmett and Charlotte. You were the inspiration behind working to obtain a doctorate. The motivational notes you slid under the door to my office while I was in class were so sweet and timely. I want you to know you can achieve anything with hard work and dedication. I love you and look forward to watching you achieve all your dreams.

I would not have been able to get to this point without the encouragement and support of my amazing husband, Thomas. Your constant checking on my progress helped me stay focused and the extra time you spent with the children so I could focus on researching and writing was invaluable. Thank you.

To my parents, Robert, and Barbara Bienvenue, thank you for instilling in me a strong work ethic. You have supported me on many journeys, and I appreciate your love, guidance, and listening to all about my dissertation journey while I was driving home from class.

Thank you to my sister, nephews, and friends who watched the children so I could have extra time to complete schoolwork. It was great knowing the children were having fun, while I focused on writing.

ACKNOWLEDGEMENTS

I would like to thank my chair, Dr. Carol Mullen, for her mentoring guidance, unending support, and timely feedback. You knew when I was ready to be pushed and challenged me to do things, I didn't know I could. I appreciate all the time spent answering my individual questions and your Thesis Gurus advising sessions.

I want to thank my doctoral cohort members, the "Elite Eleven." The support and laughs you provided along this journey will never be forgotten. I would not have made it this far without the encouragement, guidance, and group texts of my "Support Group Sisters."

I also wish to express gratitude to Dr. Carol Cash, Dr. Tinkhani White, Dr. Ted Price, and Dr. Charles Lowery for their guidance and feedback as my dissertation committee members. I thank you for your time and ongoing support throughout the process.

Thank you to Dr. Judy Cox and other VT graduates who supported me. Judy provided feedback and answered my questions. I would not have been able to do this without her support.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Chapter 1: Introduction

Overview

This research focused on principal involvement in professional development (PD) to meet policy requirements while developing principals' skills to meet their changing roles to serve as instructional leaders accountable for student academic performance. The purpose of this qualitative study was to identify the types of PD principals and principal supervisors find most beneficial in developing principals' instructional leadership skills along with the perceived benefits and challenges of participating in PD designed for the principalship role. The secondary purpose was to identify the impact principal PD may have on instructional leadership practices and student achievement. The two research questions were: What types of PD do principals and principal supervisors find most impactful to developing principals' instructional leadership skills? What are the perceived benefits and challenges of participating in virtual, hybrid, and in-person PD specifically designed for the principalship role? This study was conducted to add to the existing research on principal PD practices to support the development of instructional leadership skills.

This dissertation contains five chapters. Chapter 1 provides an overview of the study, a statement of the problem, its significance and justification, and a conceptual framework. Chapter 2 contains a review of the literature on PD specific to principals, including legislation and policy related to principal PD, types of principal PD, and benefits and challenges of participating in PD specifically designed for principals. An overview of the methodology is presented in Chapter 3: research design, participants, instrument design, data collection procedures, and limitations/delimitations. Chapter 4 includes the data analysis and findings. Implications for practitioners and researchers, and recommendations for future research, are in Chapter 5.

Statement of the Problem

The increase of accountability measures for student performance introduced in No Child Left Behind (NCLB) and expounded upon in the Every Student Succeeds Act (ESSA) has shifted the principal's role from the manager of organizational tasks to an instructional leader who is held accountable for student performance (Haller et al., 2016). Principals want to participate in PD to develop the skills necessary to be instructional leaders (Darling-Hammond et al., 2022; Johnson et al., 2021; Levin et al., 2021; Zepeda et al., 2014). Principals in Virginia are also required to participate in PD as part of the professionalism standard in the Uniform Performance Standards for Principals (Virginia Department of Education [VDOE], 2022a). Comprehensive, job-embedded, sustained PD is more effective and meets principals' needs (Darling-Hammond et al., 2022; Meddaugh, 2014; Zepeda et al., 2014). However, funding is not consistently available for PD, and there are limited opportunities for PD specifically designed for principals (Herrmann et al., 2019; Manna, 2015; Meyers et al., 2023).

A 2019 survey of 424 secondary school principals found that the average tenure of principals is about four years. The annual principal turnover rate was 18%, and the rate increased by about 25% in schools with larger low-poverty populations (Levin et al., 2021). Access to high-quality PD opportunities was noted as one of five conditions related to principal retention based on survey responses. Eighty-five percent of principals who participated in the study identified at least one barrier to participating in PD with 75% noting lack of time and 36% noting cost as the reason for not having access to PD. Levin et al. (2020) found that of the principals surveyed, 42% indicated they were planning to leave their current position. Principal turnover negatively affects student achievement and is more likely in schools with more low-income students, more students of color, and low or declining student performance (Grissom et al.,

2021). In addition, Tran et al. (2023) found the high principal turnover rate has impacted school divisions' ability to hire a diverse population of school leaders to serve as positive role models for students.

While there is limited research to guide the development of principal PD to enhance instructional leadership skills (Herrmann et al., 2019), there is growing evidence through several studies that principal learning can be linked to student achievement gains and may reduce teacher turnover rates (Darling-Hammond et al., 2022; Kraft et al., 2016). Meyers et al. (2023) found principal participation in PD had a positive impact on student outcomes and suggested the need for further research to identify programs that facilitate the growth of leadership capacities. Campoli et al. (2022) found that greater access to PD is associated with gains in English language arts and mathematics, particularly for historically underserved students of color. Principal PD is important, and more research is needed to provide insight into what types of PD make a difference in supporting the development of instructional leadership skills (Campoli et al., 2022; Darling-Hammond et al., 2022; Hallinger, 2018).

Significance of the Study

Principals of K-12 public schools are responsible for the academic achievement of their students, and they report to parents, students, teachers, school boards, district leaders, staff, and the community. The impact of principals on student learning is second only to that of the teacher's impact on student learning (Leithwood et al., 2004). The work of principals can have a marked influence on teacher effectiveness and learning outcomes (Cox & Mullen, 2023; Grissom et al., 2021; Herrmann et al., 2019; Manna, 2015; Steinberg & Yang, 2020).

Not only are principals central to instruction and student achievement, but they also play a role in the retention of teachers (Grissom et al., 2021; Kraft et al., 2016). The National Center

for Education Statistics reported that 44% of schools had full-time or part-time teaching vacancies in 2022 (DeLaRosa, 2022). Teacher turnover can be reduced by improvements in school leadership (Kraft et al., 2016). Additionally, teachers are more likely to remain in schools led by principals who participate in PD designed specifically for principals (Darling-Hammond et al., 2022; Levin et al., 2020). Principals play a key role in retaining teachers and with the current teacher shortage, support for principal PD can increase their capacity to retain teachers (Kraft et al., 2016; Levin et al., 2020).

This study is significant because it will provide an understanding of the types of principal PD used in Virginia to improve instructional leadership skills and to identify the benefits and challenges of participating in PD. The research included one-on-one, semi-structured interviews to examine the perceptions of principals and principal supervisors within two different school divisions in Virginia. The findings might help guide the development of PD for principals, including how to leverage various PD formats to overcome the challenges to participation in PD while supporting the development of instructional leadership skills.

Justification of the Study

The research focused on principal involvement in PD. While it is noted principals want to participate in PD, barriers to participation include time, cost of training, lack of support from employers, and a shortage of training opportunities specific to the principalship (Levin et al., 2020; Rodriguez-Gomez et al., 2020). When principals do participate in PD, it is often conferences or one-time sessions, not sustained, job-embedded PD that includes networking and problem-solving (Darling-Hammond et al., 2022; Lavigne et al., 2016). Westberry and Zhao (2021) found that principals were most interested in PD focused on instructional leadership skills: “understanding and using data to inform instruction; understanding all elements of

instructional leadership to include alignment, assessment, and observation; and understanding how to effectively progress monitor as an administrator" (p. 11). In addition, Johnson et al. (2021) found that principals desire opportunities to engage in learning related to their specific populations and school needs.

Advances in technology and increased access create the opportunity to utilize hybrid or virtual PD to provide personalized opportunities for principal PD at lower costs (Buxton & de Muth, 2012; Charteris et al., 2021; Gottlieb et al., 2020). The purpose of this study was to identify how different formats for PD are leveraged to overcome barriers to participating in PD specifically designed for the principal's role. Utilizing virtual technologies may be a possibility for providing external assistance to school leaders more cost-effectively; however, Ermeling et al. (2015) found no research on sustained virtual assistance for principals. Further research is needed on the use of virtual platforms for principal PD (Irby et al., 2022; Sider et al., 2023).

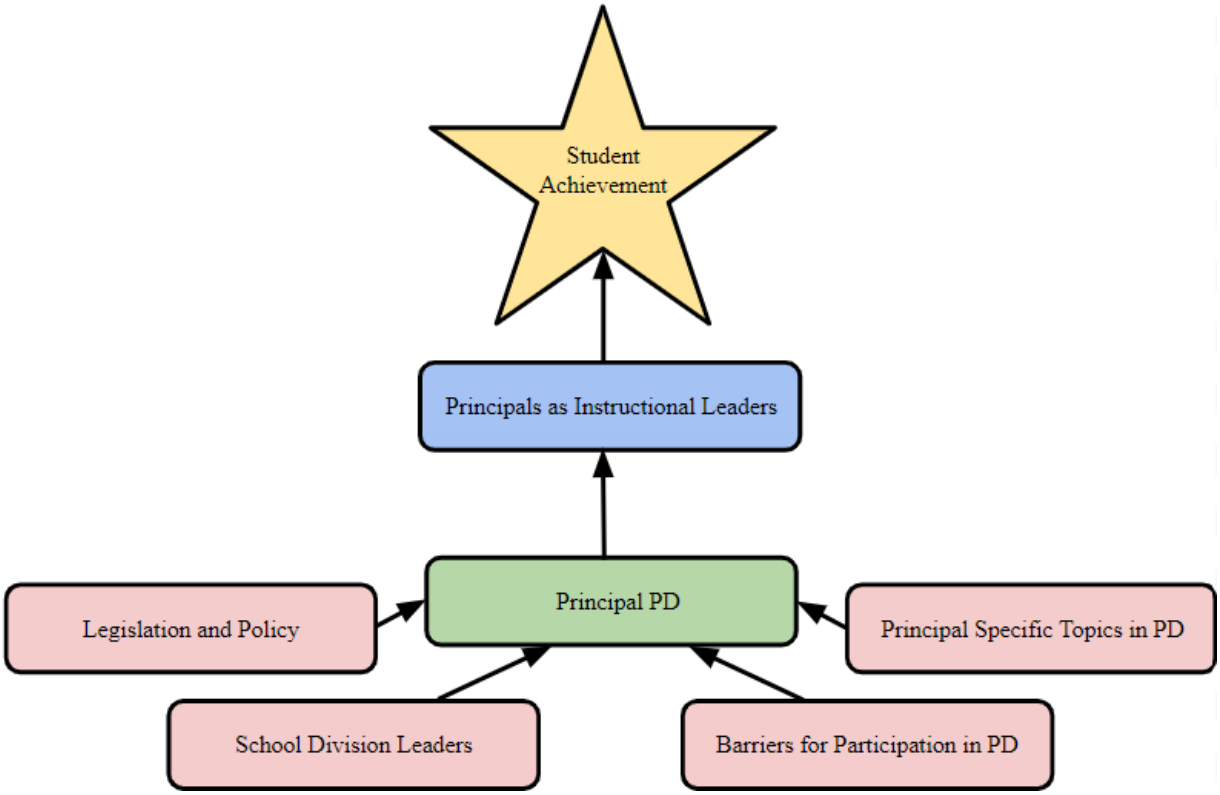
Conceptual Framework

The research questions for this study were developed using themes in current literature, including legislation and policy implications on principal PD, the need for PD to support changing roles, access to PD designed specifically for principals, and challenges of participating in PD. A review of the literature revealed there is ample research on the impact of principals and their role in supporting student achievement, but there is little research related to how principals engage in PD to develop their instructional leadership skills. The conceptual framework was designed to connect the elements of principal PD while keeping student achievement as the focal point. As Miles et al. (2020) stated, a conceptual framework requires the intentional selection of the most important components and the meaningful relationships that connect ideas.

The conceptual framework for principal PD in Figure 1 displays the relationships among components of this study. Student achievement is the goal of public schools, and principals have a strong marked influence on teacher effectiveness, learning outcomes, and student achievement (Cox & Mullen, 2023; Grissom et al., 2021; Herrmann et al., 2019; Leithwood et al., 2004; Manna, 2015; Steinberg & Yang, 2020). This study focused on how principal PD can be used to impact leadership skills. Principal PD is influenced by legislation and policies which may have unintended consequences on how principals participate in required PD (Haller et al., 2016; Manna, 2015; Rodriquez, 2019). School division leaders play a key role in determining the best way to meet the policies and to provide principal PD to be more comprehensive and differentiated based on need (Acton, 2021; Darling-Hammond et al., 2022; Westberry & Zhao, 2021; Zepeda et al., 2014). School division leaders and principals must acknowledge the barriers to participation in PD and work to overcome those barriers (Levin et al., 2020; Rodriguez-Gomez et al., 2020). A focus on principal specific topics during PD to develop instructional leadership skills can support principals' efforts to improve instructional outcomes (Darling-Hammond et al., 2022; Kraft et al., 2016; Levin et al., 2020; Zepeda et al., 2014).

Figure 1

Conceptual Framework for Principal Professional Development



Definition of Terms

The following terms and definitions outlined in Table 1 are key to the study.

Table 1

Definition of Terms

Instructional Leadership	Skills and activities related to effectively conducting teacher observations and evaluations, providing coaching and feedback to teachers, and developing data-driven instructional programs (Grissom et al., 2021).
Professional Development	According to ESSA, professional development is "sustained (not stand-alone, 1-day, and short-term workshops), intensive, collaborative, job-embedded, data-driven, classroom-focused... [S.1177, §8002 (42)]" (United States Department of Education [USDOE], 2015). PD opportunities may also be considered professional learning, continuing education, or on-the-job training.
Principal Professional Development	Any professional learning opportunity designed specifically for principals with a focus on developing "skills that enable principals to provide effective, structured feedback to teachers, to motivate them to refine their practices" (Grissom et al., 2021, p. 54); "individualized, one-on-one support provided by a coach or mentor; opportunities for networking with peers, often in structures like professional learning communities (PLCs); and opportunities for authentic, job-embedded, applied learning activities" (Darling-Hammond et al., 2022, p. 23).
Principal Supervisor	A division-level leader who directly supervises and evaluates principals (Director of Secondary Education, Chief of Staff, Assistant Superintendent for School Leadership, etc.)
Virtual Professional Development	Virtual PD is defined by Fishman et al. (2013) as "learning experiences delivered partially or completely over the Internet" (p. 427). Virtual PD may take place in both synchronous and asynchronous formats which may utilize online modules, pre-recorded videos, and discussion boards while synchronous learning can include live webinars, chat messaging, and two-way conversations with presenters and participants (Gottlieb et al., 2020; Parsons et al., 2019).
Hybrid Professional Development	Hybrid learning can be defined as a balance of in-person and online synchronous activity (Hatcher et al., 2022).

Researcher's Professional Background and Assumptions

The research study originated from the researcher's interest in providing impactful PD for principals and using various PD formats. Prior experience providing PD for principals on the school improvement process, utilizing data for instructional purposes, and serving as instructional leaders in virtual, hybrid, and in-person settings prompted the researcher's desire to

learn more about principal PD. Creating PD aligned with best practices to support principals with the challenges of leading schools through the school improvement process was a core function of her previous work, which required the use of virtual PD opportunities to reach principals across the Commonwealth of Virginia.

The researcher continually monitored assumptions throughout the research process and maintained a scholarly mindset. Member checking was utilized to increase confidence in data analysis. Two peers who are developing expertise in qualitative research served as peer debriefers to assist in ensuring inter-rater reliability with coding the data. Assumptions may have been made based on a practitioner perspective as the researcher has provided PD to principals. The researcher's goal was to determine how principal PD can best support principals to develop instructional leadership skills, how different formats for PD are utilized, and how to overcome barriers to participation in PD.

Summary

Chapter 1 provided an overview of the study. The statement of the problem, significance, and justification of the study were included. In addition, it covered the conceptual framework and definitions of key terms. The research reviewed indicated the need to understand the perceptions of principals and principal supervisors on principal PD to develop instructional leadership skills, including formats, benefits, challenges, and the perceived impact participating in principal PD has on student achievement. Chapter 2 contains a review of relevant literature on principal PD. The literature review is intended to be comprehensive and reflective of current research on principal PD.

Chapter 2: Review of the Literature

This research focused on principal involvement in professional development (PD) to meet policy requirements while developing principals' skills to meet their changing roles to serve as instructional leaders accountable for student academic performance. The purpose of this qualitative study was to identify the types of PD principals and principal supervisors find most beneficial in developing principals' instructional leadership skills along with the perceived benefits and challenges of participating in PD designed for the principalship role. The secondary purpose was to identify the impact principal PD may have on instructional leadership practices and student achievement.

The review of literature focused on identifying relevant research on principal PD including PD targeted on instructional leadership skills and in various formats. Five questions guided the literature review process:

- What is effective PD?
- Why is PD needed specifically for principals, and what types of PD would benefit principals?
- How is principal PD designed to focus on instructional leadership skills?
- What are the benefits and challenges of participating in principal PD?
- How have different formats been utilized for PD specifically designed for principals?

A review of the literature showed that with changes to the principals' role over the past few decades and the impact principals have on student learning, principals need PD focused specifically on their unique roles. The need for flexibility in targeted principal PD has increased

with the changes to the principal's role due to accountability measures and an understanding of the impact principals have on teaching and learning (Grissom et al., 2021; Haller et al., 2016).

Virtual and hybrid formats were researched as one way to provide flexible, personalized, and appealing learning opportunities for principals. *Virtual PD* can be defined as "learning experiences delivered partially or completely over the Internet" (Fishman et al., 2013, p. 427). Due to the COVID-19 pandemic, a shift occurred in virtual learning not only for K-12 students, but also for educator PD. The shift to more virtual PD occurred out of necessity, requiring educators to become comfortable with virtual platforms and providing them the opportunity to experience the benefits of virtual PD. *Hybrid PD* can be defined as "a balance of in-person or online synchronous activity" (Hatcher et al., 2022). Hybrid PD provides the opportunity for in-person learning and virtual learning to support principals beyond one-time PD sessions (Eddy et al., 2021).

While reviewing the literature, it was noted there are many studies focused on virtual PD for teachers (e.g., Buxton & deMuth, 2012; Gegenfurtner et al., 2019; Maher & Prescott, 2017; Parsons et al., 2019) and limited studies specifically related to principals. In addition, while searching for research specific to principals' use of hybrid PD, there were limited results.

Search Process

The literature review provides a comprehensive overview of the current research on principal PD, focusing on instructional leadership, benefits and challenges to participation, and different formats. A broad search utilizing the Virginia Tech (VT) remote library began in the fall of 2021. Keyword searches with Education Research Complete from EBSCOhost were utilized with parameters for scholarly articles from 2014 to 2024. Keywords included PD and *principal, principal roles, instructional leadership, principal PD, virtual PD, online PD, hybrid*

PD, and *professional learning*. After consulting with the VT library staff, additional searches were completed with Education Research Complete from EBSCOhost replacing the term *PD* with *continuing education*. Searches continued until January 2024 to ensure the most recent articles were included in this literature review. Table 2 includes results from the searches.

Table 2

Search Results of the Database Education Research Complete from EBSCOhost

Search Criteria	EBSCOhost results
PD; principals or school leaders or administrators	2,793
Principal's roles; student achievement or academic achievement	85
Education PD; virtual	52
Education PD; online PD	74
Virtual PD; principals or school leaders or administrators	4
Hybrid PD; Blended PD; education	4
Continuing Education; principals or school leaders or administrators; instructional leadership	117
Continuing Education; principals or school leaders or administrators; virtual	6

In addition, searches were conducted of ProQuest Dissertations and Theses Global with keywords including *principal PD policy, online principal PD, principal PD in Virginia*, and *educational administrators PD*. Searches were limited to documents from 2018-2024 to ensure the inclusion of the Every Student Succeeds Act (ESSA) legislation. The search resulted in the identification of three dissertations that were read and analyzed.

The search result titles were reviewed to identify abstracts specifically related to the area of focus. One hundred ninety full abstracts were read; then salient sources were identified to include in the literature review. Citations and references from salient sources were used to identify additional work of scholars in the field of principal PD to review. In addition to research articles, key pieces of federal and state legislation, policy, and reports were included in the literature review, accompanied by national reports from educational institutions and

organizations. Appendix A includes the literature review table which identifies salient sources along with color-coded themes that arose from the literature.

Professional Development History and Legislation

As leaders consider the importance of PD, it is necessary to understand the regulations and best practices to ensure their efforts have the desired impact on increasing student achievement. With the onset of school reforms in 2001, President George W. Bush signed the No Child Left Behind Act of 2001 (NCLB) into law. No Child Left Behind defined *high-quality PD* as activities that "are high quality, sustained, intensive, and classroom-focused to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom; and are not 1-day or short-term workshops or conferences …." (United States Department of Education [USDOE], 2009, p. 90). State education agencies worked with school divisions to provide support and funding for the creation of PD that would align with NCLB.

Following NCLB, on December 10, 2015, President Barack Obama signed the Every Student Succeeds Act into law. ESSA is the reauthorization of the Elementary and Secondary Education Act (ESEA) and replaced NCLB. In ESSA, the definition of PD became more specific, suggesting that funding only be provided for PD that:

> (A) is an integral part of school and local education agency strategies for providing educators (including teachers, principals, other school leaders, specialized instructional support personnel, paraprofessionals, and, as applicable, early childhood educators) with the knowledge and skills necessary to enable students to succeed in the core academic subjects and to meet challenging State academic standards; (B) are sustained (not stand-alone, 1-day, and short-term workshops), intensive, collaborative, job-embedded, data-driven, classroom-focused…. (USDOE, 2015)

The enhancement of the definition of PD is aligned with research that "school reform efforts have recognized teacher PD as a key component of change and as an important link between the standards movement and student achievement" (Darling-Hammond et al., 2009, p. 9). The definition is also aligned to the fourth edition of the Standards for Professional Learning which were constructed by Learning Forward (2011). The Standards were designed to guide policy and practices for PD that support student learning. Learning Forward (2011) outlined that PD is essential for continuous improvement and that planning, and implementation of PD need to be intentional to be successful and sustainable.

Considerations for Professional Development

To be effective, "PD sessions are not just a series of events; rather, they are parts of a coherent, focused program designed to elicit a specific outcome" (USDOE, 2004). Coherent PD activities are linked to standards and assessments, are personalized to educators' needs and goals, and build upon previous PD (USDOE, 2009). Effective PD that is thoughtfully planned and implemented will align its outcomes to improvements in educator performance and student achievement (Guskey & Yoon, 2009; Learning Forward, 2011; Meyers et al., 2023).

In addition to being well-planned, consideration should be given to ensure learning is sustained over time. Learning Forward (2011) includes in the Standards for Professional Learning that to increase educator effectiveness and results for students, PD should apply research on change and sustain support for the implementation of content learned. Darling-Hammond et al. (2009) found teachers are more likely to find PD effective if it is sustained over time and provides considerable contact hours, which allows for collaboration and active engagement. Guskey and Yoon (2009) and Meddaugh (2014) noted improvements in student learning occurred when follow-up was provided after the main PD activity. Sessions that were

found to have a greater impact on learning and the development of professional networks include multiple session meetings in a cohort format; however, Peterson (2002) found that one-day workshops are the most common types of PD programs for school principals.

To sustain learning over time, PD should be job-embedded and more comprehensive than a separate activity that is disparate from the school setting (Zepeda et al., 2014). The USDOE (2009) concluded that teachers are more inclined to implement new practices if support is provided during implementation in the classroom. Likewise, PD should engage principals in thinking, reflection, analysis, and practice with an opportunity for coaching and feedback (Peterson, 2002). Job-embedded PD supports the personalized needs and context of educators that are more effective in improving teaching practice (Darling-Hammond et al, 2009).

The Importance of the Principalship

The principal plays an important role in the teaching and learning that occurs in their school. Leithwood et al. (2004) found that principal impact is second only to teacher impact on student learning. His work was continued and expanded upon by Grissom et al. (2021), who found that improving school leadership has the potential for a strong return on investment with increased student outcomes. Principals matter, and the effectiveness of a principal is more important than that of a single teacher (Grissom et al., 2021). The work of principals can have a powerful impact on effective teaching and learning (Herrmann et al., 2019; Manna, 2015; Steinberg & Yang, 2020).

Principals play a key role in teacher satisfaction and reducing teacher turnover (Kraft et al., 2016; Levin et al., 2020). The National Center for Education Statistics reported that 44% of schools had full-time or part-time teaching vacancies in 2022 (DeLaRosa, 2022). Ronfeldt et al. (2013) noted that teacher turnover has a direct impact on student achievement. Teacher turnover

can be reduced by improvements in school leadership (Kraft et al., 2016). Additionally, teachers are more likely to remain in schools led by principals who participate in PD designed specifically for principals (Levin et al., 2020).

Principals as Instructional Leaders

The increase of accountability measures for student performance introduced in NCLB and expounded upon in ESSA has shifted the principal's role from the manager of organizational tasks to serving as an instructional leader who is held accountable for student performance (Haller et al., 2016). These changes have adjusted the expectations for the skills leaders need to utilize and how they schedule their time (Darling-Hammond et. al, 2022; Grissom et al., 2021). Tran et al. (2023) noted that principals feel the need to be available at night and on weekends, which not only impacts their work-life balance, but also their ability to focus on instructional leadership tasks. Herrmann et al. (2019) found that principals play a vital role in improving instruction and student achievement. As principals spend more time evaluating teachers and focusing on school performance, nothing is being removed from their workload.

To determine the length of time principals report spending on the job weekly and how they structure their time, Lavigne et al. (2016) conducted a data analysis of results from the Schools and Staffing Survey by the National Center for Education Statistics survey completed by 5,950 principals. School leaders reported "spending 31% of their time on internal administrative tasks, 27% on curriculum and teaching-related tasks, 23% on student interactions, and 13% on parent interactions" (p. 4). This demonstrates principals are pulled into many different directions throughout their day and consideration should be given to the types of support and training principals may need to increase the time spent on curriculum and instructional tasks (Lavigne et al., 2016).

Principal Evaluation Standards and Policy

School leaders now are evaluated not only on their performance but also on the students they serve. Nationally there is more of a focus on improving student achievement in schools, which results in more attention being focused on principals and their role in improving educational outcomes (Grissom & Harrington, 2010). The Virginia Department of Education (VDOE) has developed Uniform Performance Standards for Principals that include both principals' management and instructional leadership responsibilities. Standards provide an opportunity to improve principal performance based on honest, accurate, evaluation feedback that can guide decisions regarding PD to increase student outcomes (VDOE, 2022a).

In 2015 the National Policy Board for Educational Administration (NPBEA) revised the previous Interstate School Leaders Licensure Consortium (ISLLC) standards to create the Professional Standards for Educational Leaders (PSEL). The standards reflect the evolution of the principal's role and the qualities of educational leaders (NPBEA, 2015). The continually expanding research about educational leadership and how leaders influence student achievement supported the refresh of the standards. The 2015 standards state effective leaders:

> a) Recruit, hire, support, develop, and retain effective and caring teachers and other professional staff and form them into educationally effective faculty. b) Plan for and manage staff turnover and succession, providing opportunities for effective induction and mentoring of new personnel. c) Develop teachers' and staff members' professional knowledge, skills, and practice through differentiated opportunities for learning and growth, guided by an understanding of professional and adult learning and development. d) Foster continuous improvement of individual and collective instructional capacity to achieve outcomes envisioned for each student. e) Deliver actionable feedback about

> instruction and other professional practice through valid, research-anchored systems of supervision and evaluation to support the development of teachers' and staff members' knowledge, skills, and practice. f) Empower and motivate teachers and staff to the highest levels of professional practice and to continuous learning and improvement. g) Develop the capacity, opportunities, and support for teacher leadership and leadership from other members of the school community. h) Promote the personal and professional health, well-being, and work-life balance of faculty and staff. i) Tend to their own learning and effectiveness through reflection, study, and improvement, maintaining a healthy work-life balance. (pp. 9-18)

To meet both the PSEL and the VDOE Uniform Performance Standards for Principals, ongoing PD is needed. In Virginia, principals are evaluated on the following standards: "1. Instructional Leadership, 2. School Climate, 3. Human Resource Management, 4. Organizational Management, 5. Communication, and Community Relations, 6. Culturally Responsive and Equitable School Leadership, 7. Professionalism, and 8. Student Academic Progress" (VDOE, 2022a). According to Standard 1, when serving as an instructional leader, "The principal drives the success of all students by facilitating the development, communication, implementation, and evaluation of a shared vision of teaching and learning that leads to student academic progress and school improvement" (VDOE, 2022a). Standard 8 highlights the expectations that principals will be evaluated in part on student academic performance, and Standard 7 highlights the expectation that principals participate in PD. Ratings on each standard can help school divisions determine specific PD needs and provide personalized opportunities for principal growth as instructional leaders (VDOE, 2022a). The results of principal evaluations will allow division leaders to ensure targeted support is provided to meet principals' personalized needs.

Principal Professional Development

The principalship changes in previous decades have caused the role to increase in complexity and demands (Zepeda et al., 2014). Professional development designed for school principals can develop their knowledge, mindset, and skills to support effective teaching and learning along with focusing on the key areas of managing people, processes, and data (Grissom et al., 2021; Levin et al., 2020). To do all three areas well, while also utilizing effective problem-solving and distributed leadership approaches, school leaders need their own, targeted PD opportunities (Grissom et al., 2021). Manna (2015) urged states to take a more active role in supporting and funding principal PD to help with implementing state initiatives.

Job-embedded, in-service learning opportunities can have positive impacts if they are focused on high-leverage practice areas and solving unique problems (Grissom et al., 2021; Leithwood et al., 2004; Meyers et al., 2023). The differences in the way school divisions support principals through PD can impact the extent to which principals can be effective (Darling-Hammond et al., 2022). Grissom and Harrington (2010) found that principals who participated in sustained coaching and mentoring opportunities were rated more effective than those who participated in university-based programs. In addition, principals who participated in networked PD communities noted they learned new ideas, had reduced professional isolation, and increased reflection on their leadership (Coenen et al., 2021; Lazenby et al., 2020; Levin et al., 2020, Pashmforoosh et al., 2023). Lazenby et al. (2020) found that experienced principals value networking as a way to reduce isolation and collaborate with colleagues on how to manage changes to their roles. Personal connections and professional networks most positively influence on-the-job learning (Acton, 2021).

As accountability measures have changed, school division leadership has adjusted the focus of principal PD to be more comprehensive and differentiated based on need (Acton, 2021; Westberry & Zhao, 2021; Zepeda et al., 2014). Mizell (2010) found that student learning suffers when principals do not participate in effective PD. In a survey of 1,311 school principals in South Carolina, Westberry and Zhao (2021) found that principals were most interested in PD on "understanding and using data to inform instruction; understanding all elements of instructional leadership to include alignment, assessment, and observation; and understanding how to effectively progress monitor as an administrator" (p. 11). In addition, Acton (2021) found that an emphasis on leading the change process is lacking in principal PD opportunities. Topics of instructional leadership and accountability are important as the principal's role has shifted to leading as a change agent to impact student learning (Acton, 2021). Darling-Hammond et al. (2022) found that PD on instructional leadership helps principals learn how to guide the implementation of state standards, support the selection of effective instructional strategies and materials, and ensure teachers develop students' higher-order thinking skills, which results in higher student achievement.

Results from the Principal and School Questionnaire forms of the Schools and Staffing Survey by the National Center for Education Statistics (NCES) were used to study the types of PD principals report participating in and whether participation varies based on school grade level and poverty level (Lavigne et al., 2016). For this purpose, 6,360 principals completed the survey, and data were analyzed using logistical regression. Findings determined that 99% of principals participated in some type of PD during the 2011-2012 school year, with the most common format being conference or workshop (94%). Also, "65% of primary school principals reported

participating in a principal network, compared with 74% of high school principals" (Lavigne et al., 2016, p. 7).

Lavigne et al. (2016) surmised that principals more often participate in short-term PD and further research may be needed to determine how principals decide which PD they will participate in and the effects of principals' participation in various types of PD on school staff and students. Limitations to the study include that the survey data was self-reported, which may result in over- and under-estimations of involvement in PD. Also, the data are from 2011-2012, and schools have shifted and evolved since that time, so a repeat of this study may be needed to determine current trends.

A qualitative study designed to determine current principal PD opportunities in four school divisions in Georgia and to explore the utilization of adult learning principles in principal PD was conducted by Zepeda et al. (2014). The researchers used four single case studies for each school system and then completed a cross-case analysis. The four school systems varied in size, per capita income, demographics, and district office structure.

In the cross-case analysis, Zepeda et al. (2014) found all four school systems focused on providing PD that was job-embedded and action-based for principals as opposed to "sit and get" methods. The study showed the most valued forms of PD were both formal and informal mentoring, which provide "just in time" learning specific to principal needs. Participants in the study recognized that changes in accountability demands have shifted their perspectives and approach to leader development to be more ongoing, data-informed, and strategic (Zepeda et al., 2014). These researchers noted that most principal PD was planned and administered by school system leaders, and therefore principals did not have a choice in learning opportunities. They recommended that when preparing PD for principals, more autonomy should be provided on

choice in content, learning approaches, delivery type, pace, and desired outcomes. More research is needed on how to provide quality information and formal learning opportunities with self-directed options for school leaders.

Federal Legislation

Federal legislation provides direction on the expectations for principal PD and funding opportunities. Under NCLB, only four of the local education agency (LEA) activities were targeted to develop and retain principals,

> 1. Developing and implementing mechanisms to assist schools in effectively recruiting and retaining highly qualified teachers, principals, and personnel; 2. Providing PD activities that improve the knowledge of teachers and principals; 3. Developing and implementing initiatives to promote retention of highly qualified teachers and principals; 4. Carrying out PD activities designed to improve the quality of principals and superintendents. (USDOE, 2006)

The limited parameters in NCLB narrowed how Title II funding could be utilized to support principal PD (Haller et al., 2016). In addition to funding, Manna (2015) called for policymakers to distinguish between the needs of principals and teachers and noted that crowded state policy agendas leave little room for principal-specific initiatives.

The ESSA has allowed for a renewed focus on principal-specific PD with strategies for supporting the principal workforce instead of combining principal with teacher PD (Grissom et al., 2021; Levin et al., 2020; Steinberg & Yang, 2020). However, a gap exists between the policy and legislation related to principal PD and the full implementation of policies (Rodriquez, 2019). Previously, policymakers combined strategies for both principals and teachers, which did not build the capacity of principals to serve as instructional leaders (Haller et al, 2016; Manna,

2015). Haller et al. (2016) warned that neglecting leadership development ignores the impact that principals have on students. The challenge identified by Haller et al. (2016) was that determining the impact of PD on principals takes time to demonstrate because of the indirect impact of principals on student learning. Principal PD should focus on improving principals' performance; however, there is limited research to guide their use and design (Herrmann et al., 2019).

With the shift to ESSA, there was a renewed effort to provide additional specifications and funding for PD directed to improve principal quality (Haller et al., 2016). ESSA State Plans include strategies to address principal leadership needs by: "1. Prioritizing Excellent Instructional Leadership; 2. Advancing Diverse, Equity-Focused Leadership; 3. Distributing Leadership and Building a Leadership Pipeline; 4. Strengthening and Innovating Pre-Service Principal Preparation; and 5. Focusing and Reimagining On-the-Job Principal Support" (New Leaders, 2018, p. 1). Manna (2015) warned that PD provided with Title II funds is often targeted towards principals but is designed for teachers and that principals are observers in the sessions. When combining PD efforts, state and local education agencies are not distinguishing the specific needs of principal PD (Steinberg & Yang, 2020). Darling-Hammond et al. (2022) stated that access to high-quality PD for principals varies across states, reflecting differences in state policies.

Virginia Policies

Under ESSA, Title II state-level funding formulas increased from 2.5% up to 5% to support teacher and principal effectiveness, and states may allocate up to an additional 3% of Title II funding for support specifically for principals (USDOE, 2015). The shift to include principal PD funding allows for the use of innovative and personalized approaches to support principal development. Rodriquez (2019) completed a qualitative study using interviews and

focus groups with nine school districts in California to determine how school districts are providing principal PD, the strategies and practices used, and the principals' perceptions of how the PD is aligned to standards and their needs. One of the findings from Rodriguez (2019) included the need for the California Department of Education to allocate Title II funding for principal PD that is required and targeted specifically for principals. Darling-Hammond et al. (2022) found that only a few states have established and maintained an inclusive set of high-leverage policies specifically for principal PD. Specifically, in Virginia,

> stakeholders were not in favor of reducing LEA funding for the state to apply the optional set aside of up to three percent to implement activities for principals and other school leaders. Stakeholders indicated that they would best be able to develop specific activities based on local needs and preferred to maintain access to the full amount of available funding. (VDOE, 2018)

The Virginia ESSA State Plan outlines Title II funds that will be used to provide PD to support local education agencies in implementing the revised teacher evaluation guidelines. The State Plan includes "PD related to best practices for improving instruction and evaluation as well as training on available resources to assist teachers and education leaders in implementing the revised evaluation guidelines" (VDOE, 2018). The incorporation of PD to support the implementation of the teacher evaluation system:

> meets the purposes of Title II, Part A, specifically: a) to improve the quality and effectiveness of teachers, principals, and other school leaders; and b) to increase the number of teachers, principals, and other school leaders who are effective in improving student achievement in schools. (USDOE, 2020)

Darling-Hammond et al. (2022) stated that in addition to Title I and II funding, states should leverage American Rescue Plan Act funding and state investments to develop coordinated, high-quality, and sustained PD for principals.

In addition to federal legislation expectations about principal PD, the Code of Virginia, Standards of Quality (SOQ) § 22.1-253.13:5, which is titled "Quality of Classroom Instruction and Educational Leadership" (Code of Virginia, 1988/2022) includes details on the expectations for teachers, principals, school board members, and additional school division staff to participate in high-quality PD. Each local school board is required to provide high-quality PD, specifically:

> iv) for principals and supervisors designed to increase proficiency in instructional leadership and management, including training in the evaluation and documentation of teacher and principal performance based on student academic progress and the skills and knowledge of such instructional or administrative personnel. (Code of Virginia, 1988/2022)

The specifics of the implementation of PD are left to the LEAs. This may lead to equity issues as LEAs may not have the funding or access to highly credentialed trainers, which may result in principals across the Commonwealth of Virginia not being provided with similar PD.

Barriers to Accessing Quality Professional Development

Barriers to participation in PD for principals include incompatibility with working hours, cost of training, lack of support from employers, and lack of training opportunities (Levin et al., 2020; Rodriguez-Gomez et al., 2020). Levin et al. (2020) found that 84% of elementary principals surveyed noted they faced obstacles to pursuing PD with the top reasons being time, coverage to leave the building, and funding. Darling-Hammond et al. (2022) found that nationally, the majority of principals reported wanting additional PD, but they also noted

obstacles such as lack of time and insufficient funding to participate. Commuting time also may affect principals' participation in PD networking opportunities (Coenen et al., 2021). The expansion of internet usage and the ability to operate remotely have led to virtual principal PD as an alternative to traditional forms of PD (Levin et al., 2020; Zepeda et al., 2014).

Principals report having access to a variety of topics through workshops and conferences, which do not provide for collaborative or applied PD opportunities (Darling-Hammond et al., 2022; Lavigne et al., 2016). While there is limited research to guide the development of principal PD (Herrmann et al., 2019), Darling-Hammond et al. (2022) indicated that there is growing evidence based on several studies that principal learning can be linked to student achievement gains. Also, principal PD is important, and more research is needed on what approaches make a difference in practices.

In addition to barriers noted by principals, Honig (2012) found that instructional leadership directors or principal supervisors did not have the time needed to provide targeted support to each principal. A focus on schools with low student achievement and new principals showed a reduction in the amount of time principal supervisors spent with principals who exhibited weak instructional leadership skills (Honig, 2012). Levin et al. (2020) found that principals planning to leave the field were more likely to report their district leaders did not meet their needs, which included the area of PD opportunities.

Educational Leadership

School leaders who want to utilize the knowledge learned through PD to impact change within their schools may demonstrate transformational leadership. Principals work as change agents to improve instructional practice by inspiring teachers to reach higher standards and accomplish more than expected (Acton 2021; Ni et al., 2016; Northouse, 2022). This approach

may include providing teachers with choice and flexibility, making small incremental changes, and leading by example (Yeigh et al., 2019). Transformational leaders work to create an environment of improvement that moves beyond transactional interactions, to build a sense of efficacy with teachers to improve student outcomes (Northouse, 2022). Participating in PD opportunities and then transforming their practice based on the new learning may assist principals in guiding the leadership team to develop solutions and plan future actions that will support improved student outcomes (Pashmforoosh et al., 2023).

Virtual Professional Development

Virtual PD can be defined as "learning experiences delivered partially or completely over the Internet" (Fishman et al., 2013, p. 427). Components of virtual PD should include a common digital platform that provides for personal and group messaging, file sharing, and the capability to archive information to share later (Gottlieb et al., 2020). With advances in technology and increases in access to broadband internet, the use of virtual PD has become more accessible (Charteris et al., 2021; Gottlieb et al., 2020). Asynchronous learning can be facilitated through online modules, pre-recorded videos, and discussion boards while synchronous learning can include live webinars, chat messaging, and two-way conversations with presenters and participants (Gottlieb et al., 2020; Parsons et al., 2019).

The social distancing requirements that were necessary during the COVID-19 pandemic required a transition to virtual PD (Charteris et al., 2021); however, the USDOE has encouraged the use of virtual PD for several years (USDOE, 2017). The National Education Technology Plan (USDOE, 2017) stated that "pre-service and in-service educators will be provided with professional learning experiences powered by technology to increase their digital literacy and enable them to create compelling learning activities that improve learning and teaching,

assessment, and instructional practices" (USDOE, 2017). In addition, the USDOE (2017) suggested that one possible way for rural districts to provide PD is to leverage technology to offer distance-learning opportunities. Now that more educators have experienced the benefits of virtual PD, there will continue to be a need for this type of learning.

Virtual PD can provide more targeted, task-specific PD to build principals' instructional leadership skills from external support and experts to support them over time as they work to make improvements in their schools (Irby et al., 2022). The use of virtual PD for principals provides an increase in opportunities for self-reflection, internalization of learning, application to various school settings, and connecting with principals from outside their district (Irby et al, 2022; Pashmforoosh et al., 2023). Sider et al. (2023) found the use of virtual "choose your own adventure" case studies, provided time to develop decision making-skills in scenarios relevant to principal roles. Further research is needed to continue to draw attention to the use of virtual PD for principals (Irby et al., 2022; Pashmforoosh et al., 2023; Sider et al., 2023).

The use of virtual communities of practice for principals can provide long-term collaboration and personalized, relevant learning (Lambert & Bouchamma, 2021). Lambert and Bouchamma (2021) found that participants in the virtual communities of practice reported a sense of belonging since they all were in the same role as building leaders while the geographical differences allowed for varying views and experiences. The communities of practice focused on real-world problem-solving and networking, which support efforts to reduce the isolationism of school principals and support sustained, relevant participation in PD (Coenen et al., 2021; Darling-Hammond et al., 2022; Korach & Agans, 2011; Lambert & Bouchamma, 2021).

In addition to structured virtual PD opportunities for principals, the use of social media for informal PD has increased (Daly et al., 2019). Formal PD does not always fit the unique

contexts in which principals serve, which results in educational leaders seeking informal ways to connect with colleagues and discuss context-specific strategies (Daly et al., 2019; Hallinger, 2018). Social media provides low to no cost, just-in-time access to resources and a professional learning network of colleagues from not only the state, but across the globe, which is something principals desire (Daly et al., 2019; Lazenby et al., 2020).

Benefits of Virtual Professional Development

Reduced costs, increased reach, flexibility of scheduling, reduced travel time, adaptability of resources, and access to expertise are noted benefits of virtual PD (Charteris et al., 2021; Fishman et al., 2013; Maher & Prescott, 2017; Sider et al., 2023). These benefits vary based on format, time, content, and audience. Educators who participate in virtual PD agree there are benefits (Parsons et al., 2019).

One noted benefit of virtual PD is the potential for lower costs in both travel and facilities requirements (Buxton & de Muth, 2012; Charteris et al., 2021). This allows school divisions to offer PD on topics that are too narrow or focused to attract a large number of participants or are in remote areas, making in-person attendance difficult (Buxton & de Muth, 2012; Maher & Prescott, 2017). With the use of virtual PD, principals may access additional experts they would not have had the opportunity to learn from in person (Lazenby et al., 2020). As federal, division, and school funds for external assistance to principals have decreased, virtual formats serve as a potential solution. Readiness for virtual support needs to be evaluated before implementation (Ermeling et al., 2015). Ermeling et al. (2015) recommended future studies to determine if engaging with high-quality presenters virtually produces a greater impact than with lower quality presenters in person.

Virtual PD allows participants to have interactions over time with extended access to resources beyond just one-and-done sessions (Gegenfurtner et al., 2019; Maher & Prescott, 2017). By providing asynchronous resources in advance, Eddy et al. (2021) found participants had an opportunity to explore resources and then increase engagement during the synchronous meetings. Charteris et al. (2021) found that it can be easier for educators to maintain connections and share knowledge when working virtually. Virtual PD can provide time and opportunities that are needed for sustained PD with continuous follow-up which is recommended by Darling-Hammond et al. (2009).

Increased collaboration and earlier, higher levels of co-construction were noted as additional benefits to virtual PD by Seddon et al. (2012) in their study on web conferencing. By reviewing the chat and transcription of the recorded virtual PD sessions, they identified the types of interactions and suggested that there is a similarity between asynchronous and synchronous online interactions (Seddon et al., 2012). In comparison to face-to-face sessions, where there is limited input from the audience, webinars allow for input through text chat. They found shorter wait times followed by many typed responses with instant sharing of reflections unaffected by concerns about interrupting.

Hybrid Professional Development for Principals

Principals participate in various formats for PD, which can include a hybrid setting. *Hybrid learning* as defined by Hatcher et al. (2022) is aligned to the definition of blended learning provided by Perry (2023) as the combination of both in-person and virtual components. Ermeling et al. (2015) conducted a case study to determine the effectiveness of a hybrid/blended principal coaching program. Three elementary and two middle schools in a northwest metro-suburban district were involved in the study. The district utilized the program with positive

results for two years; however, due to funding constraints, the shift was made to a virtual program. The study focused on two schools participating for the first time and three schools that participated in-person the previous two years and would be shifting to virtual. The principals of the continuing schools maintained working with the same virtual coach (Ermeling et al., 2015).

Ermeling et al. (2015) used a multi-method design with concurrent triangulation of surveys, logs of hours, and field notes. School leaders from the five schools worked with an external coach using inquiry-oriented protocols focused on school improvement. In addition to these virtual coaching sessions with the school principal, the coach also virtually participated in monthly instructional leadership team meetings and targeted teacher work groups. Annual summer and midyear institutes were held in person with school leaders, district leaders, and coaches. Data were triangulated to determine trends among individuals, settings, and times. Scores on the surveys were also compared to those of the previous year when the program was solely in person.

The blended model was an adequate and cost-effective solution to support principals based on both quantitative ratings and qualitative analyses by Ermeling et al. (2015). The findings were similar for both schools that previously participated and first-year implementation schools. In addition, the virtual coaching format provided effective one-on-one planning meetings with principals, which expanded the principals' growth and ownership of the school improvement process. One noted challenge reported by some participants was the lack of personal connection with the coach. During future implementation, Ermeling et al. (2015) recommended more thorough pre-implementation site visits to provide additional opportunities to build face-to-face relationships before virtual coaching. The study supports that the blended

model is worth considering as a potential solution to maintain targeted PD and principal coaching when funding is a concern.

Considerations for Utilizing Virtual and Hybrid Professional Development

As PD providers consider the benefits of virtual PD, they also need to determine how to organize and facilitate the sessions to maximize participant engagement and learning. One consideration for facilitators of virtual PD is how to create an environment that fosters communication and co-designing (Charteris et al., 2021). A sense of being together and engagement is needed in virtual PD. *Social presence* is defined as "the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop interpersonal relationships by way of protecting their personalities" (Garrison, 2011, p. 352). In a virtual PD setting, social presence interactions may include participants sharing work, asynchronous discussion boards, and real-time conversations through videos, chats, and social media. Participants can form relationships online and expand their professional networks (Parsons et al., 2019). Facilitators of virtual PD should consider ways to develop sessions with two channels of communication to increase participant engagement (Maher & Prescott, 2017). Ermeling et al. (2015) found personal interactions were sometimes shortened in virtual settings and recommended further research on the sustainability of virtual PD to ensure interest and commitment are continuous.

Another consideration for facilitators is to determine which format for virtual PD will best support the intended learning outcomes. The recent growth in the use of technology provides a vast range of formats for virtual PD (Fishman et al., 2013; Sider et al., 2023). Sukarno and Sumarwati's (2020) research in Indonesia on the effectiveness of principal PD found that principals were more likely to select modules or topics that were of interest to them or their

region. Perry (2023) found the use of virtual and hybrid PD may lead to an increase in engagement outside of school time, which could create a barrier for participants with families and other commitments outside of work hours. The use of flexible PD models does not replace the existing in-person delivery models for PD but provides an additional option that can help address the changing needs and preferences of participants (Hatcher et al., 2022). Eddy et al. (2021) found that offering both ongoing asynchronous and synchronous sessions allowed participants to change their practice over time, which increased the implementation of the material learned and the impact of outcomes. Zepeda et al. (2014) made the case that principals need an individualized approach to PD with self-selected options. Principals should have more autonomy over their PD, and the use virtual and hybrid PD provides more choice and personalization (Hatcher et al., 2022; Perry, 2023; Sider et al., 2023; Zepeda et al., 2014).

Summary

Chapter 2 provided a review of the literature on principal involvement in PD to meet policy requirements while also developing their skills as instructional leaders who are accountable for student academic performance. The following themes emerged in the research: the importance of the principalship, the impact of principals on student achievement, the need for PD specific to principals, barriers to participation in PD for principals, and the use of virtual or hybrid PD as options for principals. The review of the literature revealed the value of understanding the perceptions of principals about PD, how principals utilize PD to enhance instructional leadership skills, and the impact that principal PD may have on student achievement. Chapter 3 includes a description of the methodology for the study.

Chapter 3: Methodology

Purpose of the Study

The research focused on principal involvement in professional development (PD) to meet policy requirements while developing principals' skills to meet their changing roles to serve as instructional leaders accountable for student academic performance. The purpose of this qualitative study was to identify the types of PD principals and principal supervisors find most beneficial in developing principals' instructional leadership skills along with the perceived benefits and challenges of participating in PD designed for the principalship role. The secondary purpose was to identify the impact principal PD may have on instructional leadership practices and student achievement.

Interpretive Research Framework

The research was designed based on the worldview of pragmatism. The researcher utilized a pragmatic framework to "focus on the practical implications of the research" (Creswell & Poth, 2018, p. 27). By seeking to understand the perspective of principals from different settings and with various years of experience, the study focused on the problem being studied, real-world applications, and potential solutions (Creswell & Poth, 2018). Interviews were used to develop emergent themes to show how participants' experiences with principal PD impact their perspectives (Creswell & Poth, 2018). The researcher focused on practical application, gaining understanding from principals and supervisors, and developing action-oriented findings to support the use of a pragmatic research design.

Research Questions

Two research questions and a supporting sub-question guided the study:

1. What types of PD do principals and principal supervisors find most impactful to developing principals' instructional leadership skills?

    Sub-question: What impact might principal PD have on instructional leadership skills and student achievement?

2. What are the perceived benefits and challenges of participating in virtual, hybrid, and in-person PD specifically designed for the principalship role?

Research Design

The research included an in-depth analysis of PD for a specific group of individuals which supported the use of a qualitative research design (Creswell & Creswell, 2018). A demographic survey and one-on-one, semi-structured interviews of principals and their supervisors from a rural and suburban school division in the Commonwealth of Virginia provided the opportunity to learn directly from principals and their supervisors about which PD they find most beneficial to develop instructional leadership skills, the perceived challenges and benefits of participating in virtual, hybrid, and in-person PD, and the perceived impact of PD on instructional leadership skills and student achievement. There is limited information available on PD for principals (Darling-Hammond et al., 2022; Ermeling et al., 2015; Johnson et al., 2021; Lavigne et al., 2016; Zepeda et al., 2014); consequently, this study was designed to contribute to the research on principal PD practices and PD specifically for principals.

Data collection included demographic survey responses and transcripts from one-on-one, semi-structured interviews. A survey was used to collect demographic data to identify the characteristics of principals and supervisors who participated in the interviews. One-on-one, semi-structured interviews with principals and principal supervisors provided the collection of data specific to principals' experiences with PD related to challenges, benefits, formats, and the

perceived impact of participation in PD on student achievement. Interviews created the opportunity to capture perspectives directly from practitioners. The researcher selected the school divisions, principals, and supervisor participants, conducted the interviews, and completed the data analysis. This provided an opportunity to consider differences in experience between principals from rural and suburban school divisions and between novice and experienced principals. In addition, responses and perceptions from principals and principal supervisors were compared.

Participants

The researcher sought to include a rural and suburban school division in the Commonwealth of Virginia for inclusion in the study. A determination was made to focus on two school divisions to make data collection manageable, therefore an urban school division was not included in the study. The National Center for Education Statistics (NCES) denotes four types of school locales: city, suburban, town, or rural, each with three subsections based on population size and location (Geverdt, 2019). Each school year, the Virginia Department of Education (VDOE, 2022b) utilizes definitions from NCES to identify each school division by type and subtype. Table 3 includes the selection criteria the researcher used to identify which school divisions would participate in the study.

Table 3

Selection Criteria for School Divisions

School Division	Inclusion Criteria
Rural	Identified by NCES as rural fringe, rural distant, or rural remote; Has at least six schools with a minimum of three elementary schools (Kindergarten to grade 5) and three secondary schools (grades 6 to 12). Has at least one division leader serving as a principal supervisor
Suburban	Identified by NCES as suburban large, suburban midsize, or suburban small; Has at least six schools with a minimum of three elementary schools (Kindergarten to grade 5) and three secondary schools (grades 6 to 12); Has at least one division leader serving as a principal supervisor

Upon receiving approval from the two identified school divisions that met the criteria, participants were selected utilizing purposeful sampling to ensure the principals and principal supervisors represented different school types and years of experience and could provide information related specifically to the research questions (Creswell & Poth, 2018). The interviewee sample was purposefully selected based on the inclusion criteria (Table 4). Criteria included years of experience with novice principals (three or fewer years) and experienced principals (four or more years) along with consideration of school level to include both elementary and secondary school principals. The survey was sent to 95 potential research participants and sixteen responses were received (17% response rate). Of the 16 respondents, nine principals and three principal supervisors agreed to participate in the interviews (75%). Two of four survey respondents who did not participate in the interviews did not respond to follow-up communication, one was not currently serving as a principal, and one did not provide contact information. As originally proposed, the participants represented each of the categories included in Table 4.

Table 4

Selection Criteria for Participation in the Interviews

Participants	Inclusion Criteria
Elementary Novice Principals (3 or fewer years as principal)	Currently a principal at a K-5 public school in Virginia with 3 or fewer years of experience as a principal.
Secondary Novice Principals (3 or fewer years as principal)	Currently a principal at a 6-8 or 9-12 public school in Virginia with 3 or fewer years of experience as a principal.
Experienced Principals (4 or more years as principal)	Currently a principal at a K-5 public school in Virginia with 4 or more years of experience as a principal.
Experienced Principals (4 or more years as principal)	Currently a principal at a 6-8 or 9-12 public school in Virginia with 4 or more years of experience as a principal.
Principal Supervisor	Currently a principal supervisor of one or more principals within the selected school divisions
Participants	**Exclusion Criteria**
	Any school principal or supervisor who has previously worked with the researcher.

Data Collection Procedures

Before data collection, approval from the Human Research Protection Program (HRPP) through the Institutional Review Board (IRB) for IRB #23-428 (Appendix I) was obtained (April 18, 2023). CITI training on Social and Behavioral Research was also completed (Appendix J).

An email (Appendix B) was sent to the superintendent or director of research and evaluation with a brief description of the study and a request to interview current principals and principal supervisors. Additional information requested by the school division was provided and final approval was received. An email invitation (Appendix D) to complete the demographic Qualtrics survey (Appendix E) was sent to principals and principal supervisors of the two participating school divisions in Virginia. Upon completion of the demographic Qualtrics survey and purposeful sampling, an email invitation to participate in the interview (Appendix F) was sent, and one-on-one interviews were scheduled. Data from the demographic surveys were

loaded in a Microsoft Excel spreadsheet on the researcher's VT Google Drive. Each respondent received a numerical identification code.

Interviews with principals and supervisors from the rural division were conducted, recorded, and automatically transcribed through Zoom due to the geographic distance between the researcher and participants. Interviewees from the suburban school division were provided with the option of an in-person or Zoom interview and all participants selected the Zoom interview. Handwritten notes were taken during the interviews to be utilized in data analysis (Creswell & Poth, 2018). All interview responses were organized in a Microsoft Excel spreadsheet. Each column was labeled with an interview question, and each row represented a participant's responses. The spreadsheet along with the researcher's notes were saved on the Virginia Tech shared Google Drive.

Instrument Design and Validation

Creating a valid, comprehensive, detailed research instrument is necessary to ensure the data collected guides the development of findings related to the research questions. The process for preparation and completion of the interviews for the study followed procedures aligned to the interview process found in Table 5.

Table 5

Interview Procedures Aligned to Creswell and Poth's Recommendations (2018)

Creswell and Poth (2018)	Study
Determine the research questions that will be answered by interviews.	Findings from the review of scholarly research articles, located in the review of literature, were utilized to write the research questions. The questions were revised based on recommendations from Dr. Mullen, the committee chair and expert researcher, and the doctoral committee.
Identify interviewees who can best answer these questions based on a purposeful sampling procedure.	Interviewees included novice and experienced principals of elementary and secondary public schools from a rural and suburban school division in Virginia. Principal supervisors from a rural and suburban school division also participated.
Distinguish the type of interview by determining what mode is practical and what interactions will net the most useful information to answer research questions.	One-on-one, semi-structured, 30- to 45-minute interviews were conducted to provide an opportunity to hear directly from participants.
Collect data using adequate recording procedures when conducting one-on-one or focus group interviews.	The interviews were recorded, and transcribed through the online platform, Zoom. Observation notes and reflections from the interviews were recorded.
Design and use an interview protocol, or interview guide.	The interview protocol was reviewed and revised with feedback from the doctoral committee and a current provider of principal PD who is a former principal. The interview protocol can be found in Appendix H.
Refine the interview questions and the procedures through pilot testing.	The interview protocol was validated through pilot testing with a former principal.
Locate a distraction-free place for conducting the interview.	Each interviewee selected a location that was free from distractions to participate in the interview.
Obtain consent from the interviewee to participate in the study by completing a consent form approved by the human relations review board.	The consent form for the survey and interview (Appendix C) was used upon approval by the HRPP through IRB (IRB #23-428**,** approved April 18, 2023)
Follow good interview procedures.	The interviewer stayed within the time boundaries outlined, followed the protocol, was respectful and courteous, and listened intently. Clarifying questions were used as needed.
Decide transcription logistics ahead of time. (Creswell & Poth, p. 165)	The interviews were transcribed through the Zoom platform. An Excel spreadsheet was stored on Google drive with each interviewee's name and numerical code. The recordings and transcripts were verified by interview participants before data analysis.

Interview Protocol

A similar interview protocol was used when conducting all interviews with principals or principal supervisors. The interview consisted of opening, substantive questions, and closing instructions as recommended by Creswell and Poth (2018). The interview protocols for principals and supervisors are located in Appendix H. The protocol included open-ended questions that are grounded in the literature review (Appendix G) and were reviewed and reworded based on feedback. The questions were designed to address the research questions as shown in Table 6. Clarifying questions were utilized based on responses to encourage participants to expand upon answers, if needed. The interview protocol was vetted through an informal interview with a former school principal.

Table 6

Research and Interview Question Alignment

Research Question	Interview Questions
1	1, 2, 3, 5
1a	5, 6
2	4, 7, 8

Confidential and Ethical Treatment of Data

Confidential and ethical treatment of data was a priority during the research. All data, including survey responses, interview recordings, interview transcriptions, researcher notes, coding data, and any identifiable data, was compiled and securely stored on the researcher's Virginia Tech Google Drive. Each participant was assigned a random numerical code to protect privacy. Member checking was utilized to ensure the accuracy of the interview transcriptions and increase confidence in the data analysis. Three years after the successful completion of the

dissertation, all data will be destroyed. Participants were provided with the Information Sheet for Participation in a Research Study without consent (Appendix C) before the survey and interview. Participants could withdraw at any time without any consequence and could refuse to answer any questions and remain in the study.

Data Analysis

Upon completion of data collection through the demographic surveys and one-on-one interviews, the researcher followed the steps for qualitative data analysis:

- Create and organize data files.
- Read through text, make margin notes, and form initial codes.
- Describe the case and its context.
- Use categorical aggregation to establish themes or patterns.
- Use direct interpretation. Develop naturalistic generalizations of what was learned. (Creswell & Poth, 2018, p. 199)

All data were organized including the demographic survey responses, interview transcriptions, and researcher notes. The interview transcripts were read, and recordings were listened to several times while the researcher noted repeated ideas and short expressions. Then deductive coding was used where the list of codes came "from the literature review, conceptual framework, list of research questions, hypotheses, problem areas, and/or key variables that the research brings to the study" (Miles et al., 2020, p. 74). Deductive codes that were identified a priori included e.g., *principal (PRIN), instructional leadership (IL), principal professional development (PPD), types of PD (ToPD), virtual professional development (VPD), hybrid professional development (HPD), benefits of PD (BPD), challenges of PD (CPD),* and *student achievement (SA)*. Inductive codes and emergent themes were developed based on the additional

reviews of transcripts. The color-coded data were used to identify emerging themes and patterns. After the data were analyzed, two peers developing expertise in qualitative research and coding reviewed the compiled data set to ensure inter-rater reliability and to account for any researcher biases. Connections among codes, frequency of codes, patterns from the transcripts, the literature reviewed, and research questions guided the data interpretation. Comparisons were made between rural and suburban participant responses, novice and experienced principal responses, and principal and principal supervisor responses. The data analysis and interpretation led to generalizations and summaries of findings with supporting evidence from interview responses that aligned with the research questions.

Limitations/Delimitations

There were limitations of the study applied by the researcher to make the study more manageable; thus, they were delimitations. This study was limited to public school principals and supervisors from two school divisions in Virginia. A predetermination was made to focus on a rural and suburban school division to provide two different school division experiences while also limiting the number of participants and the length of interview time to ensure data collection was manageable. The findings cannot be generalized to all school settings and principals in Virginia based on the final population for one-on-one interviews.

The interview protocol included questions to collect real-life experiences of PD to develop instructional leadership skills, the perceived impact of the skills learned on student achievement, benefits, and challenges of participating in PD, and various formats for PD. There is a possibility some principals who know the researcher from previous work experiences may respond differently; therefore, the researcher did not select interview participants with whom they have previously interacted through work to try and overcome this limitation.

Summary

Chapter 3 provided an overview of the research design including participants, data collection, instrument design and validation, confidential and ethical treatment of data, data analysis procedures, and limitations/delimitations. The qualitative methods included demographic surveys and interviews. Purposeful sampling from the surveys ensured the interviewees met the criteria and represented a diverse set of principal experiences. One-on-one, semi-structured interviews with principals and principal supervisors provided the collection of data specific to experiences with principal PD to develop instructional leadership skills, benefits, and challenges of participating in PD, perceptions of various formats for PD, and the perceived impact of participation in PD on student achievement. Interviews were conducted virtually through Zoom and digitally recorded and transcribed. Deductive coding based on the review of literature and research questions was utilized. Chapter 4 includes the data analysis and findings of the research.

Chapter 4: Data Analysis and Findings

Introduction

The purpose of this qualitative study was to identify the types of professional development (PD) principals and principal supervisors find most beneficial in developing principals' instructional leadership skills along with the perceived benefits and challenges of participating in PD designed for the principalship role. The secondary purpose was to identify the impact principal PD may have on instructional leadership practices and student achievement.

Two research questions and a supporting sub-question guided the study:

1. What types of PD do principals and principal supervisors find most impactful to developing principals' instructional leadership skills?

    Sub-question: What impact might principal PD have on instructional leadership skills and student achievement?

2. What are the perceived benefits and challenges of participating in virtual, hybrid, and in-person PD specifically designed for the principalship role?

A demographic survey was used to collect participant data and purposefully select participants for interviews. Results from the demographic survey responses from principals who participated in the interviews are displayed in Table 7. Five elementary principals and four secondary principals completed the survey and participated in the interviews. The participants from the two research sites represented varied demographics and experience levels.

Table 7

Demographic Survey of Principal Participants

Principal	Division Type	School Type	Education Level	Age Range	Gender	Race/ Ethnicity	Years as Principal
PRE1	Rural	Elementary	Doctorate	30-39	Male	White	1-3
PRS2	Rural	Secondary	Master	30-39	Female	Black or African American	1-3
PRE3	Rural	Elementary	Master	30-39	Male	White	4-7
PSE4	Suburban	Elementary	Doctorate	40-49	Female	White	1-3
PSS5	Suburban	Secondary	Master	40-49	Female	Black or African American	1-3
PSE6	Suburban	Elementary	Master	30-39	Female	Black or African American	1-3
PSE7	Suburban	Elementary	Doctorate	40-49	Female	White	4-7
PSS8	Suburban	Secondary	Master	40-49	Female	White	4-7
PSS9	Suburban	Secondary	Master	50-59	Male	White	8-12

Results from the demographic survey (responses from principals' supervisors) are displayed in Table 8. Three principal supervisors completed the survey and participated in the interviews, from a rural and suburban school division in Virginia.

Table 8

Demographic Survey of Principal Supervisor Participants

Principal Supervisor	Division Type	Supervisor School Type	Education Level	Age Range	Gender	Race/ Ethnicity	Years as Principal Supervisor
SR1	Rural	Elementary and Secondary	Master	40-49	Female	Black or African American	4-7
SS2	Suburban	Elementary	Doctorate	50-59	Male	White	4-7
SS3	Suburban	Secondary	Doctorate	40-49	Female	Black or African American	1-3

The nine principal interviewees included two elementary principals from a rural school division, three elementary principals from a suburban school division, one secondary principal from a rural school division, and three secondary principals from a suburban school division. The three principal supervisor interviewees included one from a rural school division that supervises both elementary and secondary principals, one from a suburban school division that supervises elementary principals, and another from a suburban school division that supervises secondary principals.

Table 9 lists the principal PD experiences and perceptions shared by the 12 interviewees. Common themes resulted from interviewing principals and principal supervisors regarding their experiences and perceptions of principal PD. The themes included a focus on developing instructional leadership skills (12), impact on student achievement (8, including all secondary principals and 3 principal supervisors), experiences with virtual PD (10), experiences with hybrid PD (6, including 4 principals from a suburban school division but none from a rural division), experiences with in-person PD (12), personalization and choice in PD (8, including 5 principals and 3 principal supervisors), networking during PD (7, including all secondary principals and 3 elementary principals), challenges of finding time for PD (11, including all principals and 2 principal supervisors), and identifying which PD sessions to offer (3, all principal supervisors).

Table 9

Principal PD Experiences and Perceptions

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Instructional Leadership Skills	X	X	X	X	X	X	X	X	X	X	X	X
2 Impact on Student Achievement		X		X		X		X	X	X	X	X
3 Experience with Virtual PD	X		X	X	X	X	X		X	X	X	X
4 Experience with Hybrid PD				X		X		X	X	X		X
5 Experience with In-Person PD	X	X	X	X	X	X	X	X	X	X	X	X
6 Personalization and Choice				X	X	X	X	X		X	X	X
7 Networking		X	X		X	X	X	X	X			
8 Time	X	X	X	X	X	X	X	X	X	X		X
9 Selecting PD Opportunities										X	X	X

This chapter displays the findings with aligned responses from interviewees. Participant quotes have been edited to remove repeated words that do not impact the content of the response, and conversational phrases (“you know,” “like,” etc.) have been removed to assist with readability. Three principals from a rural school division, six principals from a suburban division, one principal supervisor from a rural division, and two principal supervisors from a suburban division provided insight into principals’ PD experiences and perceptions.

Findings

All principal participants were asked the same questions from the principal interview protocol, and all principal supervisors were asked the principal supervisor interview protocol questions. Table 10 indicates the similarities and adjustments for these two job responsibilities.

The responses to the interview questions were analyzed to develop findings focused on the research questions. Responses to the interview questions, in particular question 9, supported multiple findings, so responses were included where appropriate.

Table 10

Interview Questions for Principals and Principal Supervisors

Interview questions for principals	Interview questions for principal supervisors
1. Describe your recent experiences with virtual PD designed specifically to support the development of your instructional leadership skills. How often were the sessions? What platforms were utilized?	1. Describe the types of virtual PD provided to principals to support the development of their instructional leadership skills. How often were the sessions? What platforms were utilized?
2. Describe your recent experiences with hybrid PD designed specifically to support the development of your instructional leadership skills. How often were the sessions? What platforms were utilized?	2. Describe the types of hybrid PD provided to principals to support the development of their instructional leadership skills. How often were the sessions? What platforms were utilized?
3. Describe your recent experiences with in-person PD designed specifically to support the development of your instructional leadership skills. How often were the sessions?	3. Describe the types of in-person PD provided to principals to support the development of their instructional leadership skills. How often were the sessions?
4. Do you prefer participating in in-person, virtual, or hybrid PD? Why?	4. Provide an example of when the content provided in a PD improved principals' instructional leadership skill.
5. Provide an example of when the content learned in a PD session has improved your instructional leadership skills.	5. What is an example of when the content learned in a principal-specific PD session may have had a positive impact on student achievement? Describe the PD session (format, length, audience, etc.).
6. Explain how acquired instructional leadership skills might have had an impact on student achievement. If the skills learned have not had an impact on student achievement, why?	6. What are the benefits of principals participating in PD designed specifically for them?
7. What are the benefits of participating in PD designed specifically for principals?	7. What are the challenges of principals participating in PD designed specifically for them?
8. What are the challenges of participating in PD designed specifically for principals?	8. How does your school division select which PD principals attend? Include any opportunities for choice in PD.
9. Is there anything else you can tell me that would add to this study?	9. Is there anything else you can tell me that would add to this study?

Finding 1

Principals have opportunities to develop instructional leadership skills through PD.

Analysis to Support Finding 1. Principals participate in PD designed to develop their instructional leadership skills (12 out of 12) according to all interviewees. Westberry and Zhao

(2021) found that principals were most interested in PD on instructional leadership skills: "understanding and using data to inform instruction; understanding all elements of instructional leadership to include alignment, assessment, and observation; and understanding how to effectively progress monitor as an administrator" (p. 11). Instructional leadership skills include effectively conducting teacher observations and evaluations, providing coaching and feedback to teachers, and developing data-driven instructional programs (Grissom et al., 2021).

Two rural principals (PRE1, PRS2), three suburban principals (PSS5, PSE6, PSE7), and two principal supervisors (SS2, SS3) described their experience with PD focused on conducting observations and providing feedback to teachers. A secondary principal (PRS2) commented that after attending a PD session on student engagement, they were able to create an observation tool to share with teachers. This led to a common understanding of expectations and allowed administrators to provide targeted feedback to teachers. Providing timely feedback using electronic forms and quick notes was implemented by an elementary school principal (PRE1) after attending a PD session on how to provide feedback. Two elementary principals from a suburban school division indicated after participating in a division-conducted summer conference they were able to conduct observations and offered targeted feedback aligned with the school division's instructional practices (PSE6, PSE7). Participating in collaborative classroom observations with follow-up coaching sessions with the principal supervisor created an opportunity for a secondary principal (PSS5) to develop skills for providing targeted feedback to teachers. As noted, both suburban principal supervisors (SS2, SS3) provided PD for principals on giving explicit feedback to teachers.

Three principals (PRS2, PSE4, PSE7) described PD opportunities targeted at developing their skills as coaches and how those sessions allowed them to build teachers' capacity and create shared ownership for student learning. One elementary principal (PSE4) explained,

> I learned that I am not the problem-solver. But my task as an instructional leader is to say, how can I support you in reaching your goals? And what is your goal for your students and yourself? What do you want to improve on?

An elementary principal (PSE7) noted PD focused on coaching provided them with the questioning and paraphrasing skills to help support teachers to think and engage in problem-solving collaboratively.

Three principals (PSS5, PSE6, PSS9) and two principal supervisors (SS2, SS3) noted PD on curriculum alignment and support has helped develop instructional leadership skills. No rural principals mentioned PD experiences centered on curriculum alignment. These principal supervisors described a school division-wide focus on their instructional model and expectations for principals to have purposeful conversations on design, delivery, and assessment while engaging with teachers in professional learning communities (PLC) meetings. A secondary principal (PSS5) mentioned how participating in division-led PD helped them support teachers with aligning instruction. An elementary principal (PSE6) expressed that PD provided by the Virginia Department of Education (VDOE) gave them the background information needed to ask teachers questions during planning meetings targeted on alignment and how to locate instructional resources to assist teachers.

One principal (PSS9) and two principal supervisors (SR1, SS3) reported having had experience with PD on utilizing data for instructional purposes. The secondary principal (PSS9)

shared they were able to implement data strategies learned in PD sessions to enhance teacher understanding of data-informed decision-making. The principal (PSS9) stated,

> In the past, the administrative team completed the Comprehensive Needs Assessment (CNA), but after attending a PD session during the summer I decided to expand it to include teachers, so every teacher had an opportunity to have a voice in the CNA. This led to teachers being able to delve into the data at a richer level than they've been able to before…Now they could tailor instruction and build unit plans around the data. Now it's created participation and more buy-in.

The rural principal supervisor (SR1) said that the division concentrated on data conferencing last year. Information was communicated in writing and then during an in-person meeting. They reviewed the expectations, modeled, and role-played to make sure all principals understood what the conferencing should look like. A suburban principal supervisor (SS3) mentioned PD opportunities for principals about how to use the data from some of their digital learning tools.

Four principals (PRE3, PSS5, PSS8, PSS9) and one principal supervisor (SR1) described opportunities for PD intended to support creating norms and positive school cultures. While these areas were not specifically noted in the definition of instructional leadership by Grissom et al. (2021), the interviewees shared these experiences when asked to provide an example of when the content learned in a PD session has improved their instructional leadership skills. Notably, three (of four principals) that highlighted the areas of norming and culture are experienced school principals (PRE3, PSS8, PSS9). A principal (PRE3) recalled that during a PD series that offered decision-making strategies, the principal then implemented a 24-hour rule as a staff norm. Teachers no longer expected an answer immediately from the principal knowing that they had 24 hours to reflect before providing a final answer. Decisions were made based on what was

best for the entire school as opposed to being driven by emotions. A secondary principal (PSS9) noted that after attending a PD on leadership skills, the school was able to adjust its meeting structure to better utilize time, ensure there was a clear purpose to the meeting, and make individuals feel valued. Another secondary principal (PSS5) recalled a PD session that helped create a vision for the school that resulted in teachers feeling less overwhelmed with various required initiatives being implemented.

Question 5 was asked of principals during the interviews, and the responses were utilized to develop finding 1. Principal supervisors were asked a similar question, which was aligned to question 5 for principals. Principal interview question 5: *Provide an example of when the content learned in a PD session has improved your instructional leadership skills.* A summary of the data analysis to support the findings based on interview responses is found in Table 11 by the relevant participant.

Table 11

Instructional Leadership Skills

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Observations and feedback	X	X			X	X	X				X	X
2 Coaching teachers		X		X			X					
3 Curriculum alignment and support					X	X			X		X	X
4 Data for instructional purposes									X	X		X
5 Establishing norms, positive culture			X		X			X	X	X		

Finding 2

Principals and principal supervisors perceive that participating in PD has a positive impact on teacher instructional practices and student outcomes.

Analysis to Support Finding 2. Participating in principal PD has a positive impact on instructional practices and student outcomes in schools (8 out of 12) according to a principal from a rural division (PRS2), four principals from a suburban division (PSE4, PSE6, PSS8, PSS9), and three principal supervisors (SR1, SS2, SS3). The principal plays an important role in the teaching and learning that occurs in their school. Leithwood et al. (2004) found that principal impact is second only to teacher impact on student learning. The work of principals can have a marked influence on teacher effectiveness and learning outcomes (Cox & Mullen, 2023; Grissom et al., 2021; Herrmann et al., 2019; Manna, 2015; Steinberg & Yang, 2020). Principal PD opportunities can have an impact on principal effectiveness and the teaching and student achievement in their buildings (Darling-Hammond et al., 2022; Grissom et al., 2021; Leithwood et al., 2004).

Three principals (PRS2, PSE6, PSS9) and a principal supervisor (SS2) commented that participation in principal PD led to the implementation of new instructional practices by classroom teachers that had a positive impact on student learning experiences. A secondary principal (PRS2) reported that after they attended PD on student engagement strategies, each month during faculty meetings engagement strategies were shared by the administration or teachers. The principal also created a student engagement observation tool that was implemented, and the results of the tool showed an increase in student engagement during classroom walkthroughs. An elementary principal (PSE6) recounted that after participating in PD about feedback, they were able to give targeted feedback to teachers about the read-aloud

strategies being used in class. Teachers adjusted their read-aloud practices, which resulted in more student engagement and participation during reading instruction. A secondary principal (PSS9) explained that after attending PD on school improvement and data, they were able to conduct data conversations with the teachers about student performance in reading. This led to a school-wide initiative for reading in all content areas which resulted in providing students with a variety of texts to read, extended opportunities for reading, and an improvement in reading scores. One principal supervisor (SS2) recounted that after conducting PD for principals about alternative assessments, they had several principals that adjusted expectations for teachers, which increased the use of alternative assessments. They found when providing students with varied opportunities to demonstrate their learning, students were able to achieve at a higher level.

Two principals (PSE4, PSS8) indicated that topics learned in PD allowed them to identify and support teachers to improve outcomes for specific student groups. An elementary principal (PSE4) shared that PD sessions focused on the development of coaching skills helped them to have deeper conversations with teachers about specific students. This principal was able to guide teachers through problem-solving on how best to support individual students, which resulted in improved outcomes for the students: “I really am hopeful that the discussions we have had about individual students will continue to grow the teachers to problem-solve about other students as well.” A secondary principal (PSS8) commented that they were able to participate in PD on Specially Designed Instruction (SDI) for students with disabilities. This led to developing a school goal focused on improving instructional practices for students with disabilities. They were “able to get our teachers on board with specially designed instruction,” which resulted in an improvement in performance for students with disabilities, moving the school to a level one performance level in reading by the VDOE.

Two experienced secondary principals (PSS8, PSS9) were able to identify specific instances where the implementation of strategies learned through principal PD had an overall impact on student outcomes. One secondary principal (PSS9) noted the implementation of reading in all content areas resulted in improvement in Standards of Learning assessment scores, and another secondary principal (PSS8) explained how the implementation of SDI for students with disabilities resulted in increased performance for students with disabilities in reading. All principal interviewees were asked to provide an example of when acquired instructional leadership skills might have had an impact on student achievement; however, none of the novice principals provided an example directly related to an increase in student achievement as shown in assessment data.

Two principal supervisors (SR1, SS3) indicated how principal PD has had an impact on student assessment results. A rural principal supervisor (SR1) shared about PD on research-based practices and that the principals who collaborated with their teachers to fully implement the practices saw an improvement in student outcomes, while there were "other schools that the principal did not hold teachers accountable, and we saw it in their results." A suburban principal supervisor (SS3) described a PD session for principals on a digital platform in reading:

> We actually saw a great improvement in our English scores across the board. So, I feel like the improvement was a result of bringing in the folks who know the program, giving principals hands-on support by walking through how to look at the data, looking at the passages students were reading, and then helping principals know how to monitor instruction.

Responses to question 6 asked of principals during the interviews were used to develop finding 2. Principal supervisors were asked a similar question, which was aligned to question 6

for principals. Principal interview question 6: *Explain how acquired instructional leadership skills might have had an impact on student achievement. If the skills learned have not had an impact on student achievement, why?* Table 12 is a summary of the data analysis that supports this finding from interview responses.

Table 12

Impact of Principal PD on Student Achievement

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Instructional Practice		X				X			X		X	
2 Student Focus				X				X				
3 Assessment Results								X	X	X		X

Finding 3

Principals engage in virtual PD through interactive webinars to develop their instructional leadership skills beyond the COVID-19 pandemic.

Analysis to Support Finding 3. Virtual PD can be utilized to develop principals' instructional leadership skills (10 out of 12) according to two principals from rural divisions (PRE1, PRE3), five principals from the suburban division (PSE4, PSS5, PSE6, PSE7, PSS9), and three principal supervisors (SR1, SS2, SS3). Topics of instructional leadership and accountability are important as the principal's role has shifted to more leading as a change agent with an impact on student learning, and principals have expressed interest in PD targeted on instructional leadership skills (Acton, 2021; Westberry & Zhao, 2021). Virtual PD can provide more targeted, task-specific PD to build principals' instructional leadership skills from external support and experts to support them over time as they work to make improvements in their schools (Irby et al., 2022). One benefit of virtual PD is the potential for lower costs in both travel

and facilities as well as increased access to presenters from other locations (Buxton & de Muth, 2012; Charteris et al., 2021; Lazenby et al., 2020; Maher & Prescott, 2017).

The three rural principals, five suburban principals, and all three principal supervisors stated they had experience with interactive virtual PD sessions (11 out of 12). An elementary principal (PSE6) stated one virtual PD that was provided by the school division included a very interactive speaker who utilized breakout rooms and frequent surveys in the Zoom chat box, which kept engagement high throughout the sessions. A secondary principal (PSS9) also described experiences with breakout rooms during a virtual conference that provided opportunities for small-group discussion and collaboration. Participating in virtual coaching provided an elementary principal (PSE7) the opportunity to have personal conversations to assist in developing new skills, and the small-group format enhanced engagement. A secondary principal (PSS5) commented that the engagement level in a virtual session depends on the presenter. They described a PD session where "the presenter did a really good job of bringing everybody in, inviting them to the conversation, and not letting people hide behind screens, which led to engagement."

Utilizing recordings or modules for principal virtual PD was not as common as interactive sessions, with only four principals and two principal supervisors mentioning recordings or online modules (6 out of 12). The use of self-directed, asynchronous virtual PD opportunities specifically focused on principals appeared less frequently in responses. A rural elementary principal (PRE1) said, "Recordings are helpful with our busy lifestyles since they can be watched when convenient"; however, another principal (PRS2) shared that it is easy to get distracted when watching recordings. A suburban secondary principal (PSS5) indicated that self-paced modules are less helpful than live events because there is no opportunity to ask questions,

get clarification, and hear what other participants are thinking. A rural principal (PRE3) and principal supervisor (SS2) explained that required virtual webinars provided by the VDOE are more about information sharing without the opportunity to engage or ask questions, so watching the recordings of those sessions at a more convenient time is often utilized. Based on responses related to recordings and modules, all four participants from the rural school division (PRE1, PRS2, PRE3, SR1) commented on using recordings as a form of principal virtual PD, whereas only two (of the 8 participants) from the suburban division (PSS5, SS2) described using recordings or modules as forms of virtual PD.

While the use of virtual PD became a necessity during the COVID-19 pandemic (PSE6, PSS8, SR1), the use of virtual PD for principals has continued after the COVID-19 pandemic (7 out of 13). A rural elementary principal (PRE1) stated, "Virtual PD is just part of what we do now, and it is no longer considered unique." A principal supervisor (SS2) mentioned feedback from principals indicating they felt virtual PD was effective and meaningful, so they continue to offer opportunities for virtual PD while also increasing the in-person PD opportunities. Another principal supervisor (SS3) stated while the school division moved towards more in-person PD opportunities, it still utilized virtual PD for some sessions where the presenter is not local, and then they participate in virtual sessions from the VDOE and other organizations.

One reason that virtual PD sessions have continued beyond the COVID-19 pandemic is the ease of access and convenience (9 out of 12). Virtual PD can be convenient, especially when the information being presented is a review, the sessions are short in length, or they are offered during the school day (PRE1, PSE6, PSS8). Virtual PD provides principals with the opportunity to engage in presentations they may otherwise not be able to attend. Three suburban secondary principals (PSS5, PSE7, PSS9) expressed they were able to engage in sessions presented by

national organizations and universities in other states since the sessions were offered virtually. A principal supervisor commented that the use of virtual PD is beneficial when the presenter is from a company or organization that is not local to reduce budgetary requirements for travel (SS2).

Ongoing principal PD sessions can occur through the virtual format (6 out of 12). Five principal participants reported attending PD sessions on a reoccurring basis (PRE3, PSE4, PSS5, PSE6, PSE7). These opportunities allowed participants to try the skills learned and then come back together to reflect on the implementation of new skills (PSE4, PSE6, PSE7). A secondary principal described an ongoing series that started strong. Then over time, participants became busy, and the presenter was not fully prepared, so the sessions became less meaningful (PSS5).

The responses to question 1 asked of principals during the interviews were utilized to develop finding 3. Principal supervisors were asked a similar question, which was aligned to question 1 for principals. Principal interview question 1: *Describe your recent experiences with virtual PD designed specifically to support the development of your instructional leadership skills. How often were the sessions? What platforms were utilized?* The data analysis to support the finding is shown in Table 13 by participant.

Table 13

Principal Experiences with Virtual PD

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Instructional Leadership Skills	X		X	X	X	X	X		X	X	X	X
2 Interactive Sessions	X	X	X		X	X	X	X	X	X	X	X
3 Recordings or Modules	X	X	X		X					X	X	
3 After the COVID-19 Pandemic	X				X	X			X	X	X	X
4 Accessibility	X				X	X	X	X	X	X	X	X
5 Ongoing Sessions			X	X	X	X	X					X

Finding 4

Principals have had limited exposure to hybrid PD formats to develop their instructional leadership skills.

Analysis to Support Finding 4. Hybrid PD opportunities have been utilized less frequently than in-person or full virtual sessions with six (of 12) interviewees reporting having experience with hybrid PD opportunities for principals to develop their instructional leadership skills (PSE4, PSE6, PSS8, PSS9, SR1, SS3). There is very limited research on hybrid PD specifically for principals. Hybrid models do not replace any existing delivery models but allow for flexibility to address changing needs and principal preferences for engaging in PD (Hatcher et al., 2022).

The specific format for hybrid PD varied by participant. Hybrid learning can be defined as a balance of in-person or online synchronous activity (Hatcher et al., 2022). Interviewees PSE4, PSE6, and PSS8 utilized this definition when responding to questions. Other researchers defined hybrid learning as instruction “delivered through simultaneous in-person and online

activity" (Perry, 2023). This definition allows for some participants to be in person while others engage virtually. Responses from interviewees PSS9, SR1, and SS3 are aligned to the format described by Perry (2023).

When considering hybrid PD where all participants attend some in-person sessions and some virtual sessions, one principal commented the format is like a gradual release model where we learn together, then implement, and come back together to reflect and learn more (PSE6). It was also shared by one principal that this type of hybrid approach can be utilized to shorten the length of PD sessions. At times having all principals involved in an 8-hour in-person PD session is not necessary (PSE6). A hybrid approach provides the opportunity to process, reflect, and implement new skills before coming back together to reflect and problem-solve using the new skills (PSE6). One principal discussed attending a national conference in person where they connected with a smaller group of leaders who participated in follow-up virtual sessions to engage in collaborative problem-solving (PSS8).

When considering hybrid PD where some participants are in-person while others join virtually, one principal expressed it is difficult for the presenter to engage both the in-person and virtual audience. The virtual participants did not feel they had received the same benefit from participating in the session as the in-person participants (PSS9). Two principal supervisors (SR1, SS3) indicated that this type of hybrid PD allows everyone to join even when an attendee is sick, in another location, or unable to leave their school building.

Question 2 was asked of principals during the interviews, and the responses were used to develop finding 4. Principal supervisors were asked a similar question, which was aligned to question 2 for principals. Principal interview question 2: *Describe your recent experiences with hybrid PD designed specifically to support the development of your instructional leadership*

skills. How often were the sessions? What platforms were utilized? A summary of the data analysis to support the finding based on interview responses is found in Table 14 by the relevant participant.

Table 14

Principal Experiences with Hybrid PD

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Instructional Leadership Skills						X		X	X	X		X
2 All participants in the same format (either in-person or virtual)				X		X		X				
3 Some participants in-person and some participants virtual									X	X		X

Finding 5

Principals find in-person, job-embedded PD provides a level of engagement that enhances their learning of instructional leadership skills.

Analysis to Support Finding 5. Engagement during in-person PD opportunities provides principals a chance to develop their instructional leadership skills (9 out of 12) according to three principals from a rural school division (PRE1, PRS2, PRE3), five principals from a suburban school division (PSE4, PSS5, PSE6, PSS8, PSS9), and a principal supervisor (SR1). Principal PD should include “opportunities for authentic, job-embedded, applied learning activities” (Darling-Hammond et al., 2022, p. 23).

Principals noted the applied learning activities and collaboration offered during in-person PD increased their level of engagement (8 out of 9). A secondary principal commented that during in-person PD sessions, they can easily ask questions and hear the responses to other participants' questions, which enhances their understanding and application of the topics being presented (PSS5). Three principals remarked that they can stay more focused during in-person PD sessions than virtual sessions, which increases their level of engagement in learning (PRS2, PSS8, PSS9). Two principals relayed that they find collaboration easier during in-person sessions as they can complete activities and discuss the application of their learning more effectively than during virtual sessions (PRE3, PSE4). One secondary principal (PSS9) indicated that in-person PD creates a safe environment and "in-person allows individuals to have more honest conversations…during virtual sessions, I worry sometimes that it is being recorded or you don't know who else is in the room listening to the conversation."

Three principal supervisors (SR1, SS2, SS3) and two principals (PRE1, PSE4) described the job-embedded aspect of in-person PD offerings. One suburban principal supervisor (SS2) shared the following:

> We provide PD when we meet with principals the first week of each month, and then after that, our one-to-one follow-up sessions really help put the topics learned in application and make sure that the learning is being applied. So, anything that's covered in our principals' meetings is then moved to the agenda for our one-to-one sessions.

Another suburban principal supervisor (SS3) commented on a similar process of following up with principals on topics from the principal meetings and providing one-on-one coaching and practice of the skills learned during PD. The rural principal supervisor (SR1) also mentioned the use of principal meetings to provide PD and offer role-playing opportunities to help with the

application of skills. Only three principals (PRE1, PSE4, PSS5) indicated the use of in-person principal meetings for PD and how those sessions enhanced the application of instructional leadership skills.

Interview responses to question 3 were used to develop finding 5. Principal supervisors were asked a corresponding question aligned to question 3 for principals. Principal interview question 3: *Describe your recent experiences with in-person PD designed specifically to support the development of your instructional leadership skills. How often were the sessions?* In addition, responses to principal interview question 4 support the finding. Principal interview question 4: *Do you prefer participating in in-person, virtual, or hybrid PD? Why?* Table 15 is a summary of the data analysis that supports this finding from interview responses.

Table 15

Principal Experiences with In-Person PD

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Engagement	X	X	X	X	X	X		X	X	X		
2 Job-Embedded	X			X	X					X	X	X

Finding 6

Principals have some opportunities for choice or personalization in selecting PD formats and topics.

Analysis to Support Finding 6. Opportunities for choice or personalized PD are beneficial to meet principals' varied needs (8 out of 12) according to three elementary principals, two secondary principals, and three principal supervisors. Zepeda et al. (2014) recommended that when preparing PD for principals, more autonomy should be provided on choice in content, learning approaches, delivery type, pace, and desired outcomes. Under ESSA, Title II state-level

funding formulas increased to support principal effectiveness (USDOE, 2015). The shift to include principal PD funding allows for the use of innovative and personalized approaches to support principal development.

Only one principal recalled being provided a choice in format for principal PD. When discussing changes from all virtual PD to more in-person opportunities after the COVID-19 pandemic, the principal (PSE6) stated, “There are a mixture of opportunities being offered for folks depending on their needs and comfort level.”

Five principals and three principal supervisors indicated there are choices in the topic of principal PD sessions. One principal (PSE4) and two principal supervisors (SS2, SS3) indicated that surveys were used to determine topics of interest for upcoming PD sessions. One principal supervisor shared that sometimes novice principals do not know what they need or which topics would be best for their school environment, so the principal may choose based on the presenter. In these cases, the principal supervisor guided the selection of PD sessions (SS2). Two principals and two principal supervisors described opportunities for conference attendance (PSS5, PSE7, SS2, SS3). Principals were encouraged to attend national conferences where they were offered a choice as to which sessions to attend based on needs and interests. One principal stated that attending the conference and having the ability to choose sessions that were aligned with the school’s goals allowed for the ability to bring back specific resources and ideas to support the school (PSE6).

Personalized PD opportunities were detailed by two principals and a principal supervisor (PSS5, PSS8, SR1). One secondary novice principal described coaching sessions with the principal supervisor that included collaborative classroom walkthroughs together and feedback to teachers (PSS5). The principal felt this individual support to their needs helped them provide

more targeted instructional feedback to teachers. A secondary suburban principal mentioned the benefit of being in a larger school division where the PD department is available to provide personalized support to the principal for the implementation of new changes; an example is the move from a seven-period day to a block schedule (PSS8). A rural principal supervisor indicated the use of data to determine individual school needs. The division leadership team can identify specific school needs and provide personalized support to the principal instead of requiring all principals to attend the same PD sessions (SR1). A principal indicated that while the school division provides optional learning opportunities, the sessions are open to everyone, so they are not personalized to the specific needs of the principals (PSE4).

Responses to principal interview question 4: *Do you prefer participating in in-person, virtual, or hybrid PD? Why?* and question 9: *Is there anything else you can tell me that would add to this study?* were used to develop finding 6. In addition, responses to principal supervisor question 8: *How does your school division select which PD principals attend? Include any opportunities for choice in PD.* supported finding 6. Table 16 is a summary of the data analysis that supports this finding from interview responses.

Table 16

Personalization and Choice in Principal PD

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Choice in Format						X						
2 Choice in Topic				X	X	X	X	X		X	X	X
3 Personalized PD					X			X		X		

Finding 7

Networking opportunities during principal PD are valuable and beneficial to principals.

Analysis to Support Finding 7. Principals find value in networking with other principals during PD sessions (7 out of 9). Principals who participated in networked PD communities remarked that they learned new ideas, had reduced professional isolation, and increased reflection on their leadership (Coenen et al., 2021; Lazenby et al., 2020; Levin et al., 2020, Pashmforoosh et al., 2023). Personal connections and professional networks positively influence on-the-job learning for principals (Acton, 2021).

Four principals indicated networking during PD sessions gives them new ideas they can utilize in their schools (PRE3, PSE7, PSS8, PSS9). All four principals who highlighted learning new ideas as an outcome of networking have been principals for more than four years. When attending principal PD sessions, one principal (PSE7) indicated talking to a partner gives them a chance to better understand how the content presented can be utilized in their school. A secondary principal shared that they bounce ideas off their leadership team, but at the end of the day only other principals would understand the nuances of the principal's role, and networking together provides an opportunity to hear new ideas that are working in other schools (PSS9).

The ability to problem-solve together is helpful to principals (4 out of 9). One secondary principal (PSS8) indicated it is beneficial to be with other people who have the same understanding of the work and face the same challenges. It provides an opportunity for problem-solving and brainstorming in a safe environment. An elementary principal recalled sharing with colleagues and "understanding their thought processes is helpful because they may share solutions I have not thought of yet" (PRE3). One elementary principal indicated sometimes they do not learn new material from the presenters during PD sessions, but they can learn from their

peers: “Problem-solving or talking through situations that you’re dealing with, and getting different perspectives is helpful” (PSE7).

Three experienced principals and one novice principal indicated networking helps reduce the isolation they sometimes feel in the principal role (4 out of 9). A principal (PSE6) stated that attending breakout sessions during an in-person PD conference was beneficial “because sometimes, as a principal, you feel like you’re out there in isolation by yourself. It is helpful when you can talk to other leaders who have similar school demographics.” Spending time with others who understand the job and are doing the same thing you are doing is important (PSS8). A secondary principal (PSS8) shared,

> Learning with other principals provides a sense of safety to be vulnerable. There may be things you need to learn that other people in your building would expect you to already know, but you can put your guard down when you are with other principals. You can learn together since the other principals understand what you are going through.

A rural secondary principal said participating in PD helps develop camaraderie to combat feelings of isolation felt in the leadership role (PRS2).

Responses to questions 4 and 7 asked of principals during the interviews were used to develop finding 7. Principal supervisors were asked a question aligned to question 7 for principals. Principal interview question 7: *What are the benefits of participating in PD designed specifically for principals?* Principal interview question 4: *Do you prefer participating in in-person, virtual, or hybrid PD? Why?* A summary of the data analysis to support the finding based on interview responses is found in Table 17 by the relevant participant.

Table 17

Benefits of Networking during Principal PD

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Learn new Ideas			X				X	X	X			
2 Problem Solve			X		X		X	X				
3 Reduce Isolation		X				X		X	X			

Finding 8

Principals identified time as the most common challenge to participating in PD.

Analysis to Support Finding 8. Time is a challenge principals must overcome to participate in PD (11 out of 12) according to nine principals and two principal supervisors. The principalship has changed in previous decades, which has caused the role to increase in complexity and demands (Zepeda et al., 2014). Principals are pulled in many different directions throughout their day, and consideration should be given to the types of support and training principals may need to increase the time spent on curriculum and instructional tasks (Lavigne et al., 2016). The need for flexibility in targeted principal PD has increased with the changes to the principal's role due to accountability measures and an understanding of the impact principals have on teaching and learning (Grissom et al., 2021; Haller et al., 2016; Johnson et al., 2021).

Three principals from a rural school division (PRE1, PRS2, PRE3), 6 principals from a suburban school division (PSE4, PSS5, PSE6, PSE7, PSS8, PSS9), and 2 principal supervisors (SR1, SS3) commented that time is the largest barrier to participating in PD. An elementary principal (PRE3) shared that the work does not stop when they are out of the building attending PD, and when they return, they have to catch up. A secondary principal (PSS8) indicated that it is not only the time needed to attend the PD session but also the time needed to process and

reflect on the information learned during PD that is challenging. One principal supervisor (SS3) commented that they have received feedback from principals that they need time to process the information learned and determine the next steps, which is something the principal supervisor is working on adding to future PD sessions.

A rural principal (PRE1) and suburban principal (PSS9) expressed that sometimes the PD sessions they attend are not relevant to the principalship role. The elementary principal (PRE1) explained that sometimes the sessions are aimed toward secondary topics or those that are not related to the school's specific context. The secondary principal (PSS9) stated,

> I want to leave knowing that my time was valued, and I'm a better leader because of it, or my students are going to be better, my teachers, whatever the case may be, and I don't think many sessions are truly geared towards principals.

Four principals (PRE1, PSE4, PSE7, PSS8) and a principal supervisor (SS2) expressed that there are often many competing initiatives shared during PD, which makes it challenging for principals to focus on one skill or topic at a time. One elementary school principal (PSE4) mentioned that often the principal is expected to sift through all the information to prioritize and determine how best to implement the new initiatives without support from division leadership. Another elementary principal (PSE7) stated,

> I sometimes feel like we're drinking from a fire hydrant with professional development. Everyone has wonderful ideas and there's so many new and exciting resources and methodologies that are out there, which is great. But occasionally there is beauty in being content and getting better at what you're already doing. So, I think that sometimes we just get a little too much. Like it's a deluge of professional development that ends up making you not want to do any of it.

A principal supervisor (SS2) commented that some principals do not see the connection among different PD topics. Consequently, principals become frustrated with feeling like each component is separate. They are not making connections between the various sessions to work smarter and align to or improve current practices.

Responses to question 8 asked of principals interviewed were used to develop finding 8. Principal supervisors were asked a similar question, which was aligned to question 8 for principals. Principal interview question 8: *What are the challenges of participating in PD designed specifically for principals?* A summary of the data analysis to support the finding based on interview responses is found in Table 18 by the associated participant.

Table 18

Challenges to Participating in Principal PD

	PRE1	PRS2	PRE3	PSE4	PSS5	PSE6	PSE7	PSS8	PSS9	SR1	SS2	SS3
1 Time	X	X	X	X	X	X	X	X	X	X		X
2 Relevancy to the Principalship	X								X			
2 Too many Initiatives	X			X			X	X			X	

Finding 9

Principal Supervisors utilize needs assessments, division initiatives, and VDOE policy to determine the PD opportunities provided to principals.

Analysis to Support Finding 9. State policy, local initiatives, and specific school needs are utilized to determine the PD opportunities principal supervisors offer to principals (SR1, SS2, SS3). As accountability measures have changed, school division leadership has adjusted the goal of principal PD to be more comprehensive and differentiated based on need (Acton, 2021; Westberry & Zhao, 2021; Zepeda et al., 2014). The differences in the way school divisions

support principals through PD can impact the extent to which principals can be effective (Darling-Hammond et al., 2022). Zepeda et al. (2014) found that most principal PD was planned and administered by school system leaders, and, therefore, principals did not have a choice in their PD.

Three principal supervisors (SR1, SS2, SS3) described the use of needs assessment, including a review of student performance data, principal experience level, and principal interest. A principal supervisor (SR1) discussed that they use quantitative data from student assessments, but also qualitative data, such as instructional walkthroughs, to identify the topics for future PD sessions. The suburban principal supervisors (SS2, SS3) indicated they compare the results of the needs assessment to the school division priorities and look for alignment when developing their PD plan for principals. A principal supervisor (SS3) shared they solicit feedback from principals after each PD sessions to refine future offerings and make adjustments as needed.

Looking at state and local policies also impacts the principal PD offerings provided (SR1, SS2, SS3). One principal supervisor noted the requirements of the Virginia Literacy Act and how that has impacted what additional PD opportunities they can provide (SR1). Two principal supervisors described PD from the VDOE for schools based on student performance and school quality ratings (SR1, SS3), which they said increases the number of required PD sessions some principals must attend. One principal supervisor (SS2) explained the division priorities that are set by senior leadership drive how much flexibility they have when selecting the areas of focus for the PD provided during monthly principal meetings.

Principal Supervisors were asked question 8 during the interviews, and the responses were used to create finding 9. Principal supervisor question 8: *How does your school division select which PD principals attend? Include any opportunities for choice in PD.*

Data Points

Additional principal PD practices and perceptions on the development of instructional leadership skills were shared during the interviews. Fewer than half of the interview participants reported these perceptions. Therefore, these are included as data points and not findings.

Data Point 1

Opportunities for ongoing in-person PD are not consistently provided to principals.

To be effective in meeting principals' needs, PD should be comprehensive, job-embedded, and sustained over time (Darling-Hammond et al., 2022; Meddaugh, 2014; Zepeda et al., 2014). When principals do participate in PD, it is often conferences or one-time sessions, not sustained, job-embedded PD involving networking and problem-solving (Darling-Hammond et al., 2022; Lavigne et al., 2016).

Two principals (PRE3, PSS5) and two principal supervisors (SS2, SS3) mentioned opportunities for ongoing PD sessions where the same topic or theme was revisited over time to build skills and understanding. One elementary principal (PRE3) indicated they participated in a year-long series with an outside presenter on leadership skills, and the opportunity to try the skills and ask follow-up questions in future sessions was helpful. One secondary principal (PSS5) shared that they were participating in a year-long series on school quality, which developed their skills to lead the school improvement team. Two suburban principal supervisors (SS2, SS3) noted they developed themes for a yearlong PD series, but sometimes other topics emerged throughout the year that needed to be addressed immediately, which impacted the continuity of the series.

Data Point 2

Book studies can be a meaningful form of PD to improve principals' instructional leadership skills.

One principal (PSS5) noted the use of book studies to develop their instructional leadership skills. The principal participated in book studies with other principals as well as leading book studies for the school administrative team. One principal supervisor (SS3) described the use of book studies during principal PD. All principals were reading the same book, and they had discussions based on the reading during each monthly principal meeting. The book studies provided time for participants to process the material and consider questions before attending the PD session (SS3). Principals could then refer to the book after PD sessions concluded to revisit topics (PSS5).

Data Point 3

Principals find participating in one-on-one coaching sessions helpful in developing instructional leadership skills.

Professional development should engage principals in thinking, reflection, analysis, and practice with an opportunity for coaching and feedback (Peterson, 2002). Grissom and Harrington (2010) found that principals who participated in sustained coaching and mentoring opportunities were rated more effective than those who participated in university-based programs. The use of coaching can support the development of instructional leadership skills.

Two suburban principals (PSS5, PSE7) indicated they participated in one-on-one coaching, which served as PD to support their instructional leadership skills. One elementary principal (PSE7) shared the coaching session through an out-of-state University program, providing "more frequent, personal conversations back-and-forth with opportunities to plan, then

reflect after implementing those plans. I think having that cyclical approach to the conversation has been really helpful." One secondary principal (PSS5) mentioned having follow-up coaching from the principal supervisor in a one-on-one setting helped develop skills in providing feedback to teachers. The coaching sessions were personalized to the specific principal's needs and school context. A principal supervisor (SS3) described the use of follow-up coaching to support the implementation of strategies presented during PD sessions.

Data Point 4

Presenters of PD for principals inconsistently apply adult learning theory to increase understanding and engagement.

The Professional Standards for Educational Leaders (PSEL) include that effective leaders "c) Develop teachers' and staff members' professional knowledge, skills, and practice through differentiated opportunities for learning and growth, guided by an understanding of professional and adult learning and development" (NPBEA, 2015). The concepts of adult learning and development should be considered by PD presenters.

One principal (PSE6) commented that while they enjoy in-person PD sessions, it is challenging to stay engaged all day when the presenter is not utilizing strong instructional practices geared toward adult learners. One principal (PSS5) expressed that while some presenters only lecture, the school division budget allows for the opportunity to bring in some national speakers who provide meaningful learning focused on utilizing best practices for adult learners.

Summary

Interview participants' responses demonstrated a variety of experiences and perceptions about how principal PD can support the development of instructional leadership skills, the

impact of principal PD on student achievement, formats for PD, and the benefits and challenges of participating in principal PD. All participants reported that principal PD can support the development of instructional leadership skills and that experiences with in-person PD have been beneficial. Most said that principal PD can have an impact on student achievement, that virtual PD is an effective option to support the development of instructional leadership skills, that time is a large barrier to participation in PD, and that networking opportunities and personalization/choice are benefits to PD. Chapter 5 includes the review of findings, implications for practitioners and policymakers, and suggestions for future research.

Chapter 5: Findings, Implications, and Conclusion

Introduction

The purpose of this qualitative study was to identify the types of professional development (PD) principals and principal supervisors find most beneficial in developing principals' instructional leadership skills along with the perceived benefits and challenges of participating in PD designed for the principalship role. The secondary purpose was to identify the impact principal PD may have on instructional leadership practices and student achievement. The two research questions: What types of PD do principals and principal supervisors find most impactful to developing principals' instructional leadership skills? What are the perceived benefits and challenges of participating in virtual, hybrid, and in-person PD specifically designed for the principalship role? The research addressed a gap in the literature as it outlines the perceptions of principal PD on instructional leadership skills, the perceived impact of those skills on student achievement, and identified benefits and challenges of participating in PD specific to the principalship. Chapter 5 includes a review and discussion of the nine major findings, implications for practitioners and policymakers, and recommendations for future research.

Findings

A finding in this research is identified as major if more than half of the interviewees provided responses with similar themes. Findings one through six are based on responses from principals and principal supervisors. Findings seven and eight reflect responses from principals. Finding nine is based on responses from principal supervisors. The findings align with research found in the review and analysis of the literature.

Principals have opportunities to develop instructional leadership skills through PD (Finding 1). All principals (100%, n=9) noted participation in principal PD designed to develop

instructional leadership skills, and all principal supervisors (100%, n=3) noted providing opportunities for principals to engage in PD on instructional leadership skills. The topics for principal PD targeted on instructional leadership included the following: conducting classroom observations and feedback (58%), coaching teachers (25%), monitoring curriculum alignment and curriculum support (42%), utilizing data for instructional purposes (25%), and establishing norms and positive school culture focused on instructional outcomes (42%). These topics align with the definition of instructional leadership provided by Grissom et al. (2021). This finding corresponds to the requirements in the Code of Virginia, Standards of Quality (SOQ) § 22.1-253.13:5 that:

> each local school board in Virginia to provide high-quality PD specifically for principals and supervisors designed to increase proficiency in instructional leadership and management, including training in the evaluation and documentation of teacher and principal performance based on student academic progress and the skills and knowledge of such instructional or administrative personnel. (Code of Virginia, 1988/2022)

Principals and principal supervisors perceive that participating in PD has a positive impact on teacher instructional practices and student outcomes (Finding 2). Eight participants (67%, n=12) commented they perceived the instructional leadership skills learned during PD sessions had a positive impact on teacher instructional practices and student outcomes. Participant responses included the implementation of new strategies learned during principal PD that enhanced student engagement and the utilization of data to make instructional decisions. Two experienced principals (PSS8, PSS9) and two principal supervisors (SS2, SS3) described specific examples of the positive impact principal PD had on student performance, including an increase in student assessment performance. Novice principals did not provide specific examples

of the impact of PD on student performance through improved test scores, which demonstrates that the impact of principal PD may take several years to see in student outcomes. This aligns with the research of Haller et al. (2016) that determining the impact of PD on principals takes time to demonstrate because of the indirect impact of principals on student learning. The perceived impact that participating in principal PD had on teaching and learning corresponds to the research on the impact of principals on effective teaching and learning (Acton 2021; Cox & Mullen, 2023; Grissom et al., 2021; Herrmann et al., 2019; Manna, 2015; Steinberg & Yang, 2020).

Principals engage in virtual PD through interactive webinars to develop their instructional leadership skills beyond the COVID-19 pandemic (Finding 3). All participants (100%, n=12) shared experiences with virtual principal PD. These opportunities included a focus on instructional leadership skills (83%), included interactive sessions (92%), involved the use of recordings or modules (58%), provided increased accessibility (75%), were ongoing sessions (50%), and continued to occur after the COVID-19 pandemic (58%). Interview participants mentioned benefits of virtual PD that are aligned to the current research highlighting reduced costs, increased reach, flexibility of scheduling, opportunities for ongoing support, adaptability of resources, and access to expertise as benefits of virtual PD (Charteris et al., 2021; Fishman et al., 2013; Gegenfurtner et al., 2019; Irby et al., 2022; Maher & Prescott, 2017; Sider et al., 2023). Staying engaged and having the opportunity to ask questions were identified challenges to participating in virtual PD, which is supported by the research of Charteris et al. (2021) that found virtual PD requires the intentional creation of an environment that fosters communications.

Principals have had limited exposure to hybrid PD formats to develop their instructional leadership skills (Finding 4). Three principals (33%, n=9) and two principal supervisors (67%, n=3) noted experience with hybrid PD formats. Participants indicated flexibility in scheduling, time for processing information, and maintaining connections made during in-person sessions as benefits of hybrid PD. This aligns with Eddy et al.'s (2021) finding that offering both ongoing asynchronous and synchronous sessions allowed participants to change their practice over time, which increased the implementation of material learned and the impact of outcomes. Hatcher et al. (2022) found that hybrid formats allow for flexibility based on participants' preferences for engaging in PD.

Principals find in-person, job-embedded PD provides a level of engagement that enhances their learning of instructional leadership skills (Finding 5). Eleven of the participants (92%, n=12) mentioned experiences with in-person PD. Specific examples of an increased level of engagement were shared by nine participants, and six participants referred to job-embedded components of principal PD. Opportunities to ask clarifying questions, participate in discussions, and engage in activities were identified as benefits of in-person PD sessions. Role-playing, one-on-one coaching, and incorporating PD into principal meetings were identified as opportunities for job-embedded learning that is relevant to the principalship role. This finding aligns with the research that job-embedded, comprehensive learning opportunities can have positive impacts if they are focused on high-leverage practice areas and solving unique problems (Darling-Hammond et al., 2022; Grissom et al., 2021; Leithwood et al., 2004; Meddaugh, 2014; Meyers et al., 2023; Zepeda et al., 2014).

Principals have some opportunities for choice or personalization in selecting PD formats and topics (Finding 6). Five principals (56%, n=9) noted opportunities for choice or

personalization in selecting PD, while three principal supervisors (100%, n=3) discussed providing principals opportunities for choice or personalization in principal PD. Only one principal (11%) described opportunities for choice in format, while five principals (56%) shared they had opportunities for choice in topic. Interest surveys and opportunities to attend national conferences with many sessions were described by five principals and three principal supervisors. Participants referred to personalized PD through the use of coaching, small-group sessions, or principal requests for a specific topic. Zepeda et al. (2014) recommended that when preparing PD for principals, more autonomy should be provided on choice in content, learning approaches, delivery type, pace, and desired outcomes. This finding aligns with the research of Johnson et al. (2021), who noted the need for principals to have differentiated PD aligned to context and experience level. Leveraging virtual PD may be one way to provide personalized opportunities for principal PD at lower costs (Buxton & de Muth, 2012; Charteris et al., 2021; Gottlieb et al., 2020). When provided with personalized PD, principals can focus on their roles as instructional leaders instead of attending sessions designed for a larger audience. Manna (2015) warned that PD is often targeted toward principals but is designed for teachers and that principals are observers in the sessions. PD providers need to develop principal-specific PD opportunities that include choice to ensure principals' individual needs are met.

Networking opportunities during principal PD are valuable and beneficial to principals (Finding 7). Seven principals (78%, n=9) highlighted the benefits of networking opportunities during principal PD sessions. Learning new ideas, problem-solving, and feeling less isolated were noted through interview responses. Four principals (PRS2, PSE6, PSS8, and PSS9) described that the principalship can be isolating, and participating in PD allows them to discuss with people who understand the job and with whom they can be vulnerable. This finding aligns

with the research that noted principals value networking to learn new ideas, increase reflection on their leadership, reduce isolation, and collaborate with colleagues on how to manage changes to their roles (Coenen et al., 2021; Lazenby et al., 2020; Levin et al., 2020, Pashmforoosh et al., 2023).

Principals identified time as the most common challenge to participating in PD (Finding 8). The current study confirmed that time is one of the largest barriers to participating in principal PD, similar to the findings of Levin et al. (2021) and Darling-Hammond et al. (2022). All principal participants (100%, n=9) and two principal supervisors (67%, n=3) indicated that principals want to attend PD sessions that are specific to their role where they will learn new skills and that include time for reflection. The participant responses demonstrated that principals could become overwhelmed with the number of initiatives and that if they are going to be away from their school buildings, they want to know their time is valuable. Two participants noted they have attended PD sessions that were not relevant to the principalship role (22%, n=9). Steinberg & Yang (2020) noted that state and local education agencies do not consistently distinguish the specific needs of principals during PD. Lavigne et al. (2016) found that principals are pulled into many different directions throughout their day and consideration should be given to the types of support and training principals may need to spend more time on curriculum and instructional tasks. Levin et al. (2021) found that lack of time was the most common response when principals were asked to identify barriers to participating in PD, which aligns with finding 8 of this study.

Principal Supervisors utilize needs assessments, division initiatives, and Virginia Department of Education (VDOE) policy to determine the PD opportunities provided to principals (Finding 9). Principal supervisor responses from the current research supported the

variety of considerations they take when selecting principal PD opportunities. Utilizing a needs assessment and data collection helps to identify topics for PD, but those topics must be reconciled with division priorities and state and national requirements. The current study confirmed that principal supervisors plan PD opportunities for principals, which aligns with the research of Darling-Hammond et al. (2022) and Zepeda et al. (2014). As principal supervisors evaluate principals utilizing the VDOE Uniform Performance Standards for Principals, they use the results to determine future PD needs of principals.

The findings followed from semi-structured interview responses. It was confirmed that the participants found principal PD to be important; however, they experienced difficulty finding the time to fully engage in PD to build instructional leadership skills. Networking, personalization, and sessions designed specifically for principals were identified as priorities. While in-person PD was the most common for the participants, virtual and hybrid PD opportunities had value for their flexibility in scheduling, increased access, and cost savings. The findings can provide principal supervisors with details on how to develop and monitor effective PD opportunities for principals to enhance instructional leadership skills and student achievement.

Practitioner Implications

School principals might consider the findings as they identify which PD opportunities to attend and how to implement information learned in PD to impact instructional leadership skills and student achievement. Principal supervisors can consider the findings when developing PD for principals, supporting the implementation of skills learned during PD sessions, and monitoring the impact of principal PD. Providers of PD might utilize the findings when developing PD opportunities for principals focused on developing instructional skills.

Principal supervisors should create networking opportunities during PD sessions to allow principals time for collaboration and problem-solving (Implication 1). Implication 1 aligns with Findings 1, 5, 7, and 9. Principal supervisors should ensure principals have opportunities to collaborate and problem-solve with other principals during PD sessions. Principals can utilize these opportunities to engage with others to reduce a feeling of isolation and learn new ideas aligned to their school context or areas of need. Principals should advocate for these opportunities if they are not readily available. After providing PD, principal supervisors should support principals with implementing the skills learned and provide opportunities for principals to connect with colleagues to discuss the implementation and impact of the new skills on instructional delivery.

Leaders of PD for principals might consider how various formats can be leveraged to provide flexible and ongoing learning opportunities. Exploring opportunities for virtual and hybrid formats to support learning beyond one-time sessions may be helpful (Implication 2). Implication 2 aligns with Findings 3 and 4. Professional development providers should utilize various formats for PD sessions to best meet the schedules of principals while offering follow-up sessions. Virtual sessions provide principals with access to presenters from other geographic locations and can be utilized to increase access to PD opportunities specifically designed for principals. Hybrid sessions allow principals to have in-person learning combined with virtual follow-up sessions that could be used to reflect, problem-solve, and enhance in-person learning. Partnerships with Institutions of Higher Education (IHE) could be utilized to develop models of PD beyond traditional courses to meet the specific needs of practicing principals (Dionne et al., 2023).

Principal supervisors are advised to schedule unencumbered time for principals to participate in PD which provides for choice in time and format (Implication 3). Implication 3 aligns with Finding 8. Principal supervisors should solicit feedback from principals on the best time to offer PD and identify designated time for principals to engage meaningfully in PD (Johnson et al., 2021). Consideration should be given to incorporating time for reflection and follow-up to assist principals with utilizing the skills learned in PD. Principal supervisors may consider different formats or offer the same session multiple times to ensure principals can fully engage in the PD sessions.

Leaders of PD should consider creating clear objectives for PD aligned to specific instructional leadership skills so the implementation and impact of the skills developed can be monitored (Implication 4). Implication 4 aligns with Finding 2. Specific attention should be given to determining the effectiveness of PD sessions based on clear objectives. If principals are not implementing instructional leadership skills, principal supervisors should utilize job-embedded coaching or additional PD opportunities to support the principal. Student achievement data should be reviewed regularly to determine how the skills the principal implemented impact student outcomes. If the data does not reflect an impact on student achievement, the principal and principal supervisor should conduct classroom observations, provide targeted feedback, and develop progress monitoring processes.

Division leaders are advised to develop clear PD plans for principals that allow for choice and personalized PD opportunities (Implication 5). Implication 5 aligns with Findings 6 and 9. While division leaders work to align PD to strategic plans, VDOE policies, and division-wide goals, they should consider how to provide personalized PD that meets individual principal needs. Attention should be given to equity-centered instructional topics to support specific

school contexts. Division leaders should be cautious of having too many competing priorities that will impact principals' abilities to implement the skills learned during PD sessions. In addition, consideration should be given to determine which PD sessions all principals need to attend versus when choice and personalization would be more beneficial to meet principals' needs.

Policy Implications

The findings from the study led to the development of implications that should be considered by policymakers as they create policies related to principal PD.

The US Department of Education (USDOE), the VDOE, and local school boards should ensure PD is provided specifically for principals focused on the development of instructional leadership skills (Implication 6). Implication 6 aligns with Findings 1 and 2. Policies hold principals accountable for student achievement and as principals work to support effective instructional practices, they need specific PD to develop skills as instructional leaders. Policymakers are encouraged to consider the needs for principal-specific PD opportunities and incorporate requirements for principal PD when creating policies. The VDOE, IHEs, and other principal leadership organizations can collaborate with policymakers to ensure principal PD is aligned to the instructional skills needed to support student achievement.

Policymakers should consider the unintended consequences of policies to ensure local school divisions have the support needed to overcome barriers to participation in principal PD (Implication 7). Implication 7 aligns with Findings 5 and 8. Policies should provide appropriate funding, unencumbered time for participation in PD, flexible formats and scheduling, ongoing PD to provide time for implementation and reflections, and to ensure access to PD that is targeted specifically for principals. Access to PD should be equitable for all principals and

funding should be distributed to ensure all principals can participate regardless of the size or location of the school division.

The VDOE and local school boards should consider policies that will ensure sustainable, ongoing, and personalized PD opportunities for principals (Implication 8). Implication 8 aligns with Finding 6. As policies are created, consideration needs to be focused on ensuring principals have the skills needed to support their specific school contexts. Principal turnover is increasing, especially in low-poverty divisions (Levin et al., 2021) so it is important principal PD is targeted to specific needs. Collaboration with IHEs and professional principal organizations can support the development of policies that will provide sustained PD with opportunities for choice that aligns to the needs of the principal and the school context. The VDOE and local school boards need to ensure principal PD opportunities align to ESSA and "are sustained (not stand-alone, 1-day, and short-term workshops), intensive, collaborative, job-embedded, data-driven, classroom-focused…. (USDOE, 2015)." The use of required training sessions may be necessary at times, but consideration should be given to ensuring principals participate in ongoing PD opportunities that enhance instructional leadership skills.

Suggestions for Future Research

This study could be expanded to include more principals and principal supervisors throughout Virginia, and possibly through the US. Additional participants may provide more expansive responses to assist practitioners and scholars on the topic of principal PD for developing instructional leadership skills. With the inclusion of a larger sample size, the focus might be narrowed to study the impact participating in principal PD has on student achievement by collecting student achievement data before and after principals participated in PD and implemented the instructional leadership strategies learned. Researching a specific student group

or school contexts to determine how the impact of principal PD might vary by context would be beneficial.

Future researchers may consider conducting a quantitative study through surveys to solicit information from an expansive group of principals from across Virginia or the United States. This would provide a broad set of data that could be utilized to identify trends, patterns, benefits, challenges, and needs of principal PD. The results of the study could lead to broad implications or areas that need to be further researched. In addition, the data could be used to develop interview questions for a mixed methods study.

As researchers consider PD formats for principal PD, future research could be conducted to determine the differences in principals' instructional leadership skills when participating in in-person, virtual, or hybrid sessions. One consideration could be to have the same content presented in the three different formats with a comparison of the outcomes based on the implementation of instructional leadership skills and the impact on student achievement. Another consideration could be to review the outcomes of PD provided by different organizations to compare the effectiveness of PD provided to principals by the school division, outside presenters, IHEs, or the VDOE. IHEs may consider adjusting the purpose of this study to create a study focused on principal preparation programs instead of principal PD.

The dispositions of leaders who can effectively implement information learned during PD may be a consideration for future research. Developing an understanding of the characteristics of principals as learners could help human resource teams and principal supervisors with the selection and development of principals to become lead learners who can utilize strategies gained during PD.

While principals understand the benefits of PD, they face several barriers to participation. Future research could be completed on whether PD resources are distributed equitably among school divisions and, if not, how the inequitable distribution of resources for principal PD impacts principals' development of instructional leadership skills. Researching PD opportunities available to principals in a variety of rural and suburban school divisions to identify trends, patterns, and any discrepancies in opportunities may help guide the development of policies to ensure equitable access to principal PD opportunities.

Conclusion

This research provides practitioners and scholars with principal and principal supervisors current perceptions of principal PD in two school divisions in Virginia. The findings are timely due to the increased responsibilities placed on principals as instructional leaders, and high principal and teacher turnover rates which create the need for effective principal PD opportunities. While policy drives requirements for principal PD, research shows that principals have an impact on student outcomes and that principal PD can be used to guide the development of instructional leadership skills to support student achievement. Providers of principal PD must work to overcome barriers to participation while creating PD opportunities specifically for principals. Principals want to participate in PD that includes flexible formats, opportunities for choice and personalization, and intentional time for networking and reflection. Sustained, flexible, targeted principal PD has the potential to improve instructional leadership skills and student achievement outcomes.

References

Acton, K. (2021). School leaders as change agents: Do principals have the tools they need? *Management in Education*, *35*(1), 43–51. https://doi.org/10.1177/0892020620927415

Buxton, E., & de Muth, J. (2012). Adult learners' perceptions of a professional development program comparing live distance learning versus live local learning. *Journal of Continuing Higher Education*, *60*(1), 12–19. https://doi.org/10.1080/07377363.2012.649125

Campoli, A. K., & Darling-Hammond, L. (with Podolsky, A., & Levin, S.). (2022). *Principal learning opportunities and school outcomes: Evidence from California*. Learning Policy Institute. https://doi.org/10.54300/438.376

Charteris, J., Berman, J., & Page, A. (2021). Virtual team professional learning and development for practitioners in education. *Professional Development in Education*, *47*(4), 638–650. https://doi.org/10.1080/19415257.2021.1879215

Code of Virginia, Standards of Quality (1988/2022). § 22.1-253.13:5. *Standard 5. Quality of Classroom Instruction and Educational Leadership.* https://law.lis.virginia.gov/vacode/title22.1/chapter13.2/section22.1-253.13:5/

Coenen, L., Schelfhout, W., & Hondeghem, A. (2021). Networked professional learning communities as means to Flemish secondary school leaders' professional learning and well-being. *Education Sciences*, *11*(509), 1-33. https://doi.org/10.3390/educsci11090509

Cox, J. S., & Mullen, C. A. (2023). Impacting student achievement: Principals' instructional leadership practice in two Title I rural schools. *Journal of School Leadership*, *33*(1), 3-25. https://doi.org/10.1177/10526846221133996

Creswell, J. W., & Creswell, J. D. (2018). *Research design* (5th ed.). Sage.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design* (4th ed.). Sage.

Daly, A. J., Liou, Y., Del Fresno, M., Rehn, M., & Bjorklund, P. (2019). Educational leadership in the Twitterverse: Social media, social networks, and the new social continuum. *Teachers College Record, 121*(140304), 1-20.

Darling-Hammond, L., Wechsler, M. E., Levin, S., Leung-Gagné, M., & Tozer, S. (2022). *Developing effective principals: What kind of learning matters?* Learning Policy Institute. https://doi.org/10.54300/641.201

Darling-Hammond, L., Andree, A., Richardson, N., Orphanos, S., & Wei, R. C. (2009). *Professional learning in the learning profession: A status report on teacher development in the U.S. and abroad.* Technical Report School Redesign Network at Stanford University. https://edpolicy.stanford.edu/sites/default/files/publications/professional-learning-learning-profession-status-report-teacher-development-us-and-abroad.pdf

DeLaRosa, J. (2022, March 3). *U.S. schools report increased teacher vacancies due to COVID-19 pandemic, new NCES data show.* National Center for Education Statistics. https://nces.ed.gov/whatsnew/press_releases/3_3_2022.asp

Dionne, G., Patrick, K., Francis, R., Deschaine, M., & Sloan, K. (2023). Going to the principal's office: Principal perceptions and the potential alliance between PK-12 schools and institutions of higher education to meet professional development needs. *Journal of Research on Leadership Education,* 1-33. https://doi.org/10.1177/19427751231176585

Eddy, P., Macdonald, R., & Baer, E. (2021). Professional development during a crisis and beyond: Lessons learned during COVID. *New Directions for Community Colleges*, *2021*(195), 199–212. https://doi.org/10.1002/cc.20477

Ermeling, B., Tatsui, T., & Young, K. (2015). Virtual coaching for instructional leaders: A multi-method investigation of technology-enabled external assistance. *Teachers College Record*, *117*, 48.

Fishman, B., Konstantopoulos, S., Kubitskey, B. W., Vath, R., Park, G., Johnson, H., & Edelson, D. C. (2013). Comparing the impact of online and face-to-face professional development in the context of curriculum implementation. *Journal of Teacher Education*, *64*(5), 426–438. https://doi.org/10.1177/0022487113494413

Garrison, D. R. (2011). Communities of inquiry in online learning. *Encyclopedia of distance learning*, (2nd ed., pp. 352–355). IGI Global.

Gegenfurtner, A., Zitt, A., & Ebner, C. (2019). Evaluating webinar-based training: A mixed-methods study of trainee reactions toward digital web conferencing. *International Journal of Training and Development*, *24*(1), 5–21. https://doi.org/10.1111/ijtd.12167

Geverdt, D. (2019). *Education Demographic and Geographic Estimates program (EDGE): Locale boundaries file documentation*, 2017 (NCES 2018-115). U.S. Department of Education. Washington, DC: National Center for Education Statistics. https://nces.ed.gov/programs/edge/docs/EDGE_NCES_LOCALE.pdf

Gottlieb, M., Egan, D. J., Krzyzaniak, S. M., Wagner, J., Weizberg, M., & Chan, T. (2020). Rethinking the approach to continuing professional development conferences in the era of COVID-19. *The Journal of Continuing Education in the Health Professions*, *40*(3), 187–191. https://doi.org/10.1097/CEH.0000000000000310

Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021). *How principals affect students and schools: A systematic synthesis of two decades of research*. The Wallace Foundation. http://www.wallacefoundation.org/principalsynthesis

Grissom, J. A., & Harrington, J. R. (2010). Investing in administrator efficacy: An examination of professional development as a tool for enhancing principal effectiveness. *American Journal of Education, 116*(4), 583–612. https://doi.org/10.1086/653631

Guskey, T. R., & Yoon, K. S. (2009). What works in professional development? *Phi Delta Delta Kappan, 90(*7), 495-500.

Haller, A., Hunt, E., Pacha, J., & Fazekas, A. (2016). *Lessons for states: The Every Student Succeeds Act (ESSA) increases focus on and investment in supporting principal preparation and development*. US Department of Education.

Hallinger, P. (2018). Bringing context out of the shadows of school leaders. *Educational Management Administration & Leadership, 46*(1), 5-24. https://doi.org/10.1177/1741143216670652

Hatcher, J., King-Corken, A., & DeVaney, T. (2022). *The future of teaching and learning: Face to face, hybrid, and online instructional delivery models.* Paper presented at International Conference on Cognition and Exploratory Learning in the Digital Age, Southeastern Louisiana University, LA, United States.

Herrmann, M., Clark, M., James-Burdumy, S., Tuttle, C., Kautz, T., Knechtel, V., Dotter, D., Wulsin, C. S., & Deke, J. (2019). *The effects of a principal professional development program focused on instructional leadership*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/pubs/20200002/pdf/20200002.pdf

Honig, M. (2012). District central office leadership as teaching: How central office administrators support principals' development as instructional leaders. *Educational Administration Quarterly*, *48*(4), 733-774. https:doi.org/10.1177/0013161X12443258

Irby, B., Pashmforoosh, R., Druery, D., Eljaouhari, N., Tong, F., & Lara-Alecio, R. (2022). An analysis of virtual professional development for school leaders during COVID-19. *International Journal of Virtual and Personal Learning Environments*, *12*(1), 1-19. https://doi.org/10.4018/IJVPLE.302097

Johnson, A., Clegorne, N., Croft, S., & Ford, A. (2021). The professional learning needs of school principals. *Journal of Research on Leadership Education, 16*(4), 305-338. https://doi.org/10.1177/1942775120933933

Korach, S., & Agans, L. J. (2011). From ground to distance: The impact of advanced technologies on an innovative school leadership program. *Journal of Research on Leadership Education*, *6*(5), 216-233. https://doi.org/10.1177/194277511100600508

Kraft, M. A., Marinell, W. H., & Shen-Wei Yee, D. (2016). School organizational contexts, teacher turnover, and student achievement: Evidence from panel data. *American Educational Research Journal, 53*(5), 1411–1449.

Lambert, M., & Bouchamma, Y. (2021). The virtual community of practice for school principals: A professional development method. *Creative Education*, *12*, 422-440. https://doi.org/10.4236/ce.2021.122030

Lavigne, H. J., Shakman, K., Zweig, J., & Greller, S. L. (2016). *Principals' time, tasks, and professional development: An analysis of schools and staffing survey data* (REL 2017–201). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands. http://ies.ed.gov/ncee/edlabs

Lazenby, S., McCulla, N., & Marks, W. (2020). The further professional development of

experienced principals. *International Journal of Leadership in Education, 25*(4), 533-547. https://doi.org/10.1080/13603124.2020.1716999

Learning Forward. (2011). *Standards for professional learning: Quick reference guide.* https://learningforward.org/wp-content/uploads/2019/09/standards-reference-guide.pdf

Leithwood, K., Seashore, K., Anderson, S., & Wahlstrom, K. (2004). *Review of research: How Leadership influences student learning.* Wallace Foundation. https://www.wallacefoundation.org/knowledge-center/documents/how-leadership-influences-student-learning.pdf

Levin, S., Scott, C., Yang, M., Leung, M., & Bradle, K. (2021). *Supporting a strong, stable principal workforce: What matters and what can be done.* National Association of Secondary School Principals and Learning Policy Institute. https://www.nassp.org/wp-content/uploads/2020/08/LPI-and-NASSP-Research-Agenda-Final-Report.pdf

Levin, S., Leung, M., Edgerton, A. K., & Scott, C. (2020). *Elementary school principals' professional learning: Current status and future needs.* Learning Policy Institute. https://learningpolicyinstitute.org/media/467/download?inline&file=NAESP_Elementary_Principals_Professional_Learning_REPORT.pdf

Maher, D., & Prescott, A. (2017). Professional development for rural and remote teachers using video conferencing. *Asia-Pacific Journal of Teacher Education, 45*(5), 520–538. https://doi.org/10.1080/1359866X.2017.1296930

Manna, P. (2015). *Developing excellent school principals to advance teaching and learning: Considerations for state policy*. Wallace Foundation. https://www.wallacefoundation.org/knowledge-center/Documents/Developing-Excellent-School-Principals.pdf

Meddaugh, N. K. (2014). Coaching the school principal's capacity to lead underperforming schools. *Journal of School Public Relations, 35*(2), 147-175. https://doi.org/10.3138/jspr.35.2.147

Meyers, C. V., Wronowski, M. L., & LaMonica, L. (2023). Evidence that in-service professional learning for educational leaders matters. *Journal of Research on Leadership Education*, *18*(1), 103-131. https://doi.org/10.1177/19427751211042060

Miles, M. B., Huberman, A. M., & Saldana, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage.

Mizell, H. (2010). *Why professional development matters.* Learning Forward. https://learningforward.org/wp-content/uploads/2017/08/professional-development-matters.pdf

Mullen, C. A., & Hall, R. (2023, October). *Equity-centered leadership: Professional development supporting principals' changing roles.* Paper presented at the Centre for Leadership & Diversity conference, University of Toronto, Canada.

National Policy Board for Educational Administration. (2015). *Professional Standards for Educational Leaders 2015*. https://www.npbea.org/wp-content/uploads/2017/06/Professional-Standards-for-Educational-Leaders_2015.pdf

New Leaders. (2018). *Prioritizing leadership: An analysis of state ESSA plans*. (ED591503). ERIC. https://files.eric.ed.gov/fulltext/ED591503.pdf

Ni, Y., Hollingworth, L., Rorrer, A. K., & Pounder, D. (2016). The evaluation of educational leadership preparation programs. In M. Young & G. Crow (Eds.), *Handbook of research on the education of school leaders* (2nd ed., pp. 285-307). Routledge.

Northouse, P. G. (2022). *Leadership: Theory and practice*. SAGE.

Parsons, S. A., Hutchison, A. C., Hall, L. A., Parsons, A. W., Ives, S. T., & Leggett, A. B. (2019). U.S. teachers' perceptions of online professional development. *Teaching and Teacher Education, 82,* 33-42. https://doi.org/10.1016/j.tate.2019.03.006

Pashmforoosh, R., Irby, B., Lara-Alecio, R., & Tong, F. (2023). *Developing school leaders' instructional leadership practices through reflection*. https://www.icpel.org/uploads/1/5/6/2/15622000/pashmforoosh_et_al.23.12.9.pdf

Perry, E. (2023). Teacher professional development in changing circumstances: The impact of COVID-19 on schools' approaches to professional development. *Education Sciences, 13*(48), 1-12. https://doi.org/10.3390/educsci13010048

Peterson, K. (2002). The professional development of principals: Innovations and opportunities. *Educational Administration Quarterly, 38*(2), 213-232.

Rodriguez, S. (2019). *The urgency of principal professional development and the implications for policy and practice* [Doctoral dissertation, California State University, Fresno]. ProQuest Dissertations and Theses Global. http://hdl.handle.net/10211.3/213491

Rodriguez-Gomez, D., Ion, G., Mercader, C., & López-Crespo, S. (2020). Factors promoting informal and formal learning strategies among school leaders. *Studies in Continuing Education*, *42*(2), 240–255. https://doi.org/10.1080/0158037X.2019.1600492

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, *50*(1), 4–36. https://doi.org/10.3102/0002831212463813

Seddon, K., Postlethwaite, K., James, M., & Mulryne, K. (2012). Towards an understanding of

the learning processes that occur in synchronous online seminars for the professional development of experienced educators. *Education and Information Technologies*, *17*(4), 431-449. https://doi.org/10.1007/s10639-011-9166-8

Sider, S., Maich, K., Specht, J., Treadgold, C., & Winger, H. (2023). "Choose your own adventure": Web-based case studies of inclusive education as a form of professional learning for school principals. *Journal of Research on Leadership Education*, *18*(1), 132-154. https://doi.org/10.1177/19427751211046978

Steinberg, M. P., & Yang, H. (2020). *Does principal professional development improve schooling outcomes? Evidence from Pennsylvania's Inspired Leadership Induction Program* [Working Paper]. Annenberg Institute at Brown University. https://edworkingpapers.com/sites/default/files/ai20-190-v2.pdf

Sukarno, S. & Sumarwati S. (2020). Participants' perceptions of the effectiveness of online continuing professional development for principals in central Java, Indonesia. *International Journal of Instruction*, *13*(2), 477–492. https://doi.org/10.29333/iji.2020.13233a

Tran, H., Buckman, D., Gause, S., Reabold, E., & Sauls, R. (2023). Systemic barriers in district principal development and hiring practices for women and people of color in the principalship. *Journal of Research on Leadership Education*, 1-25. https://doi.org/10.1177/19427751231213096

U.S. Department of Education. (2004). *Tips for designing a high-quality professional development program.* USDOE Reading First Policy Brief

U.S. Department of Education. (2006). *Guidance for the implementation of improving teacher quality.* https://oese.ed.gov/files/2019/09/guidance-2.pdf

U.S. Department of Education. (2009). *State and local implementation of No Child Left Behind Act*. https://www2.ed.gov/rschstat/eval/teaching/nclb-final/report.pdf

U.S. Department of Education. (2015). *Every Student Succeeds Act.* https://www.congress.gov/114/plaws/publ95/PLAW-114publ95.pdf

U.S. Department of Education. (2017). *Reimagining the role of technology in education: 2017 National Education Technology Plan update.* https://tech.ed.gov/files/2017/01/NETP17.pdf

U.S. Department of Education. (2020). *Title II preparing, training, and recruiting high-quality teachers, principals, or other school leaders.* https://oese.ed.gov/offices/office-of-formula-grants/school-support-and-accountability/essa-legislation-table-contents/title-ii-part-a/

Virginia Department of Education. (2018). *State plan to implement ESSA.* https://www.doe.virginia.gov/home/showpublisheddocument/52591/638435405456430000

Virginia Department of Education. (2022a). *Guidelines for uniform performance standards and evaluation criteria for principals.* https://www.doe.virginia.gov/home/showpublisheddocument/38458/638061804171600000

Virginia Department of Education. (2022b). *Division locale codes.* [Unpublished data].

Westberry, L., & Zhao, F. (2021). A psychometric look at principal professional development. *International Journal of Education Policy and Leadership*, *17*(7), 1-16. https://doi.org/10.22230/ijepl.2021v17n7a1103

Yeigh, T., Lynch, D., Turner, D., Provost, S. C., Smith, R., & Willis, R. L. (2019). School leadership and school improvement: An examination of school readiness factors. *School Leadership and Management*, *39*(5), 434–456. https://doi.org/10.1080/13632434.2018.1505718

Zepeda, S. J., Parylo, O., & Bengtson, E. (2014). Analyzing principal professional development practices through the lens of adult learning theory. *Professional Development in Education*, *40*(2), 295–315. https://doi.org/10.1080/19415257.2013.821667

Appendix A: Literature Review Table

Author(s) and Year	Purpose Research Question(s)	Methodology Data Sources	Findings and Implications	Themes
Acton, K. (2021)	Exploratory study to address gaps in the literature and gain an understanding of whether experienced principals perceive their PD has prepared them to be effective change agents.	Qualitative semi-structured interviews of five elementary principals.	Principals receive limited PD on how to influence change and need to understand the change process. Principals need PD on how to support teachers' varying needs. Networking and on-the-job experience are effective PD.	Principals as Instructional Leaders Educational Leadership Principal PD
Buxton, E., & de Muth, J. (2012)	Exploratory study to examine adult learners' satisfaction with content and environment. Comparing the results of in-person and webinar participants in a pharmaceutical conference session.	Quantitative survey of 80 in-person (62% response rate) and 60 webinar participants (30% response rate).	Distance learning appears to be a viable option especially when considering the shrinking continuing education budgets. One major advantage of distance education is lower production costs due both to travel and facilities and offering focused topics that may not draw a large enough audience to support in-person events.	Virtual PD
Charteris, J., Berman, J., & Page, A. (2021)	What are the characteristics of virtual teams that can serve the purpose of continuous PD and development in schools (PLD)? Australia	Literature Review	There are efficiencies and benefits to using technology to connect practitioners across a diverse range of settings and particular benefits. Relevant PD can be fostered through virtual teams' collaborations. With the evolving use of technologies, there is a need to consider how best to	Virtual PD

			plan for and execute an evidence-informed approach to virtual teams and the ongoing support for practitioners engaging in VTPLD.	
Coenen, L., Schelfhout, W., & Hondeghem, A. (2021)	To what extent can PLCs contribute to the professional well-being of Flemish secondary school leaders? To what extent can PLCs contribute to the individual PD of Flemish secondary school leaders?	Longitudinal mixed-method approach including observations of three PLCs, surveys, interviews, and case study approach.	PLCs led to the acquisition of new ideas, a reduction of professional isolation and an increased ability to critically reflect on one's own professional conduct. Although PLCs are a time-consuming initiative and principals are easily over-solicited, we found principals to perceive their PLC as a worthwhile time investment.	Principal PD Educational Leadership
Daly, A. J., Liou, Y., Del Fresno, M., Rehn, M., & Bjorklund, P. (2019)	ND	Longitudinal analysis of twitter use	We live in a social world and are impacted by others in ways that are both conscious and unconscious. Educational leadership should be viewed as a system of relations that recognizes the individual is important; it is the system of interactions among individuals that is equally informative. Social media exemplifies the extraordinary capacity of people to generate, spread, and exchange ideas, information, and opinions through interpersonal, collective communication within a massive socially networked system. Virtual networks are dynamic, grow, and evolve over time.	Educational Leadership Virtual PD

Darling-Hammond, L., Wechsler, M. E., Levin, S., Leung-Gagne, M., & Tozer, S. (2022)	ND	Literature Review	High-quality principal preparation and PD programs are associated with positive principal, teacher, and student outcomes, ranging from principals' feelings of preparedness and their engagement in more effective practices to stronger teacher retention and improved student achievement. Access to preservice and in-service learning opportunities covering important content has been increasing for principals. However, access to important job-based learning opportunities (e.g., internships, applied learning, and mentoring or coaching) is still lacking. Principals' access to high-quality learning opportunities varies across states and by school poverty level, reflecting differences in state policies. Policies that support high-quality principal learning programs can make a difference.	Principal PD Principals as Instructional Leaders
Darling-Hammond, L., Andree, A., Richardson, N., Orphanos, S., & Wei, R. C. (2009)	The purpose of this report is to provide policymakers, researchers, and school leaders with a teacher-development research base that can lead to powerful PD, instructional improvement, and student learning.	Literature Review	Much of the PD available focuses on educators' academic content knowledge, and pays growing attention to mentoring support. But, overall, the kind of high-intensity, job-embedded collaborative learning that is most effective is not a common feature of PD across most states, districts, and schools in the United States.	Professional Development

Eddy, P., Macdonald, R., & Baer, E. (2021)	What was the effectiveness of a virtual professional development program for STEM faculty conducted in 2020.	Evaluations and program capstone of 48 college faculty participants experiences with asynchronous and synchronous PD.	Engagement in asynchronous work before meeting together in real time, which gave faculty a chance to reflect on new content before discussing applications with others. Benefit for PD participants to relate their personal and team goals to the local context. Networking provided the opportunity to share evidence-based practices to tackle challenges and by their expertise, which helped participants not only improved learning for others but also improved their confidence and leadership skills.	Virtual PD Hybrid PD
Ermeling, B., Tatsui, T., & Young, K. (2015)	To what extent do virtually supported leadership teams demonstrate fidelity of implementation of the Getting Results instructional improvement model comparable to that of a traditional face-to-face implementation? What specific implementation strengths and challenges emerge that are unique to the virtual assistance framework? What are some of the pivotal factors and suggestions for effective implementation of the blended model from the	The study used a mixed-methods design, including video-recorded meetings, rubric-based coding and ratings, interviews, focus groups, and coaching logs to investigate implementation at three elementary and two middle schools during one full academic year.	Evidence suggests that the blended coaching model served as an adequate and cost-effective substitute for traditional face-to-face coaching at all five pilot schools. The virtual coaching format was particularly effective for conducting one-on-one planning meetings with principals and served as a catalyst to expand principals' growth and ownership of the instructional improvement process.	Virtual PD Hybrid PD Principal PD Principals as Instructional Leaders

	perspective of the study participants? To what extent were virtual coaching services provided within the design constraints of the blended model?			
Gegenfurtner, A., Zitt, A., & Ebner C. (2019)	What are the reactions of training participants toward digital webinar-based training?	Mixed methods including survey responses from 419 participants who participated in 48 webinars in the four content areas (supply chain management, industrial management, early childhood education and mathematics) about the satisfaction toward the webinar and narrative interviews of 23 participants.	Trainees had a positive reaction across content areas that webinars afford anytime access to training material and offer high levels of geographical flexibility. Implications for webinar design and implementation include finding ways for interaction, scheduling for no more than 90 minutes, and providing time to answer questions.	Virtual PD
Gottlieb, M., Egan, D. J., Krzyzaniak, S. M., Wagner, J., Weizberg, M., & Chan, T. (2020)	ND	Literature Review of how to run conferences for the medical field during covid-19	Networking small group sessions and workshops can include participant interaction. Larger webinar sessions generally do not provide for interaction. Digital messaging platforms may be utilized. Utilize short presentations with breaks. Further research is needed to gauge the effect of new delivery models on attendee engagement and learning.	Virtual PD
Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021)	Who are public school principals, and how have their characteristics changed over the past two decades?	Literature review including six longitudinal studies.	Effective principals are at least as important for student achievement as previous reports have concluded—and in fact, their importance may not have	Principals as Instructional Leaders Educational Leadership

	How much do principals contribute to student achievement and other school outcomes? What drives principals' contributions? How has the principalship changed over the past two decades? What changes have occurred in the policy and school contexts in which principals work, and how have the characteristics of principals themselves shifted over time?		been stated strongly enough. Principals have substantively important effects that extend beyond student achievement. Effective principals orient their practice toward instructionally focused interactions with teachers, building a productive school climate, facilitating collaboration and professional learning communities, and strategic personnel and resource management processes. Research on school principals is highly variable, and the field requires new investment in a rigorous, cohesive body of research.	
Grissom, J. A., & Harrington, J. R. (2010)	The connection between administrator PD and performance in a national sample of schools.	Quantitative survey	Principals who participate in mentoring and coaching opportunities are rated more effective by the teachers in their schools, while principals who devote PD time to university course work and networking are rated less effective.	Principals as Instructional Leaders Principal PD
Guskey, T. R., & Yoon, K.S. (2009)	ND	Analysis of findings from over 1,300 studies that potentially address the effect of PD on student outcomes	All of the studies that showed a positive relationship between PD and improvements in student learning. Workshops focused on the implementation of research-based instructional practices that provided times for teachers to be involved in active-learning experiences and adapt the practices to their unique classroom situations were effective. PD with outside experts produced the greatest improvements in student learning.	Professional Development

Haller, A., Hunt, E., Pacha, J., & Fazekas, A. (2016)	ND	Report of ESSA and implementation in Illinois	The passage of ESSA creates new opportunities for innovation and improvement in the area of principal preparation and development. The tendency of policy makers to combine strategies aimed at teachers and principals fails to adequately support and provide for the unique PD required for educators in these discrete roles. Neglecting to adequately fund leadership development ignores the larger impact and greater return on investment that could be achieved by investing in improving principal quality with strategies aimed at building their capacity to scale effective teaching and leadership practices.	Principals as Instructional Leaders Principal PD
Hatcher, J., King-Corken, A., & DeVaney, T. (2022).	To address the needs of current and prospective students regarding face to face, hybrid models, and online options for course delivery.	Case study that examines the redesign and reimagining of a graduate course to fit the diverse needs and preferences of students.	A balanced approach to instructional delivery will replace a one size fits all delivery model of courses in order to increase accessibility to the program for a broader range of students with diverse needs and preferences.	Virtual PD Hybrid PD
Herrmann, M., Clark, M., James-Burdumy, S., Tuttle, C., Kautz, T., Knechtel, V., Dotter, D., Wulsin, C. S., & Deke, J. (2019)	To measure effects on principals' practices and school climate: principal surveys, teacher surveys, and logs principals completed to document how they used their time during the school day • To measure effects on student achievement: district records on students' test scores in	Quantitative study of PD in 100 elementary schools from 8 districts using surveys, logs, and test scores.	The study provides suggestive evidence that PD focused on principals' instructional leadership could help improve student achievement. Principals in the study received the intended amount of group trainings and individualized coaching that included opportunities to practice and discuss the new skills promoted.	Principal PD Principals as Instructional Leaders

	grades 3 through 5 for both years of program implementation plus one additional school year • To measure effects on principal and teacher retention: district records on principals' and teachers' school assignments from district evaluation systems for both years of program implementation		However, the program did not improve principals' practices, on average.	
Irby, B., Pashmforoosh, R., Druery, D., Eljaouhari, N., Tong, F., & Lara-Alecio, R. (2022)	1. After participating in a VPD session, to what extent did practicing school leaders' knowledge of the presented topic, peer coaching, change from pre- to post-assessment? 2. What were the perceptions of the participants related to delivery of the VPD? 3. What were the perceptions of the participants related to the overall effectiveness of the VPD?	Mixed methods using pre-post questionnaires and reflection questions from 180 principal participants in a VPD opportunity	There are few research studies related to VPD for school leaders, and even fewer have evaluated VPD's efficacy in improving school leaders' practices. Participants were provided with useful professional growth resources that they could access at times and locations convenient for them. After participating in the intensive VPD the participants felt more equipped with highly useful leadership skills and knowledge for impacting the schools. Participants stated that the pre-recorded VPD pushed them to think about the content they just studied and promoted reflection about changes they could make in their schools. Additionally, quality VPD that can bring in external support via expert professional developers can help school leaders stay focused on	Virtual PD Hybrid PD Principal PD

			priorities and transform schools into strong professional communities. These findings can also help policy makers legislate new PD policies informed by the new virtual learning environment	
Johnson, A., Clegorne, N., Croft, S., & Ford, A. (2021)	How does institutional and social context frame and contribute to superintendent construction of principal preparation and development? What can the experiences of school district leaders tell us about the contemporary needs for principal preparation and development?	Qualitative research to identify the preparation needs of principals through the lens of seven school superintendents in the southeastern United States.	Regular formal support for leader development is important, but difficult to provide given the different needs of various leaders and scarcity of time. S PD was essential to each of the panelists for meeting rigorous student success standards and school performance. While all the participants agreed that both instructional and operational leadership were essential, there was a preference toward instructional leadership as the more immediate need of the two.	Principal PD Principals as Instructional Leaders
Korach, S., & Agans, L. J. (2011)	Explore the impact of the utilization of online technologies in the delivery of a professional preparation program.	Qualitative surveys and interviews of the innovative classroom-based principal preparation program (ICP) that used a blended online program (BOP)	The online environment decreased the capacity for individuals to have influence over others. The potential of online technologies to promote generative learning is evident, but continued investigation into the processes and structures is needed for replication and sustainability.	Principal PD Virtual PD
Lambert, M., & Bouchamma, Y. (2021)	To examine the characteristics of a virtual community of practice (CoP) as a professional development approach with school principals	Interviews with ten principals who participated in a virtual community of practice	The structured networking within a CoP has allowed each of the school principals to give and receive in a collaborative sharing aimed at improving the professional competencies needed to fulfill their	Principal PD Virtual PD

			roles and responsibilities effectively, each at his or her own pace. Virtual CoP allowed for sharing among participants from different regions.	
Lavigne, H. J., Shakman, K., Zweig, J., & Greller, S. L. (2016)	How much time do principals report spending on the job each week? How do they divide up their time on various job-related tasks? In what types of PD do principals report participating? Does principals' participation in PD vary based on school grade level and school poverty level?	Secondary analysis of data collected through the 2011/12 School and Staffing Survey by the National Center for Education Statistics	Principals' time is divided between tasks that are administrative in nature and tasks that focus on teachers and students with most of their time spent on administrative tasks. Almost all principals of regular public schools reported participating in some PD with 94% reporting they participated in workshops or conferences.	Principal PD Principals as Instructional Leaders
Lazenby, S., McCulla, N., & Marks, W. (2020)	Is the PD offered to, provided for, or experienced by principals keeping pace with experienced principal's needs?	Mixed method study of PD opportunities and needs for experienced principals in Australia. Interview and surveys were used.	Experienced principals highly value networking and interaction with their colleagues both of which were seen to provide them with the most effective, beneficial, and relevant professional learning. At a time when principal accountability is high and there is widespread pressure to increase student achievement, principals, more than ever, are relying on the relationships developed in collegial networks.	Principal PD Principals as Instructional Leaders
Leithwood, K., Seashore, K., Anderson, S., &	What effects does successful leadership have on student learning? How should the	Literature Review	Efforts to improve principal recruitment, training, evaluation, and ongoing development should be	Principal PD Principals as Instructional Leaders

Wahlstrom, K. (2004)	competing forms of leadership visible in the literature be reconciled? Is there a common set of "basic" leadership practices used by successful leaders in most circumstances? What else, beyond the basics, is required for successful leadership? How does successful leadership exercise its influence on the learning of students?		considered highly cost-effective approaches to successful school improvement. Of all the factors that contribute to what students learn at school, present evidence led us to the conclusion that leadership is second in strength only to classroom instruction.	Educational Leadership
Levin, S., Scott, C., Yang, M., Leung, M., & Bradle, K. (2021)	To examine the extent of conditions that often contribute to principal turnover.	National survey of 424 secondary school principals and six focus groups with 33 school leaders from 26 states	Among all principals, 75 percent cited lack of time, and 36 percent cited lack of money. The most commonly cited obstacle to preservice professional preparation was the cost. As districts review principal workload, they should consider time for professional development as essential. As the importance of strong principals has become increasingly clear, more states are increasing their commitments to funding principal professional learning opportunities through coaching, mentoring, and networks, as well as through professional development courses, workshops, and conferences.	Principal PD Principals as Instructional Leaders Educational Leadership
Levin, S., Leung, M., Edgerton, A. K., & Scott, C. (2020)	To learn more about principals' opportunities for professional learning	Random sample of 1,000 principals who were selected to represent U.S.	Most elementary school principals had access to professional development content identified as important for	Principal PD Principals as Instructional Leaders

		elementary school principals proportionately by state. The survey had a 41% response rate, with 407 principals responding.	building leadership capacity, including topics in leading equitable schools. Many elementary school principals appear not to have had the opportunity to participate in authentic, job-embedded professional learning. More than four in five elementary school principals (84%) indicated that they faced obstacles to pursuing professional development. Most elementary school principals reported that their districts can play a role in helping to overcome obstacles to professional learning and can support principals' continuous improvement, but this varied by the proportion of students in poverty and students of color in schools.	
Manna, P. (2015)	Report to provide possible steps state policymakers from across the political spectrum can take to help ensure that principals are well trained and well supported.	ND	State policymakers give much more attention to teachers and teacher-related issues than to principals. Principal professional development issues receive limited attention. States have adopted demanding policy initiatives which require significant knowledge and attention from school principals. The initiatives likely will stumble during implementation unless principals are prepared to help carry them out.	Principal PD Principals as Instructional Leaders
Meddaugh, N. K. (2014)	How do coaches leverage their knowledge, skills, and	Qualitative case studies	Findings confirmed that principals were not prepared to be instructional	Principal PD

	experience to build the capacity of principals to lead systematic instructional improvements and turn around underperforming schools?		leaders. The belief that instructional decisions were not the responsibility of the building principal but the district's central office responsibility seemed to permeate underperforming schools. Findings indicated that principals and staff felt empowered to make shared decisions about school improvement and student performance.	Principals as Instructional Leaders Educational Leadership
Parsons, S.A., Hutchison, A.C., Hall, L.A., Parsons, A.W., Ives, S.T., & Leggett, A.B. (2019)	What are teachers' reflections on their experiences with online PD? What are teachers' perceptions of different approaches to online PD? How are teachers' reflections on their experiences related to their perceptions of different approaches to online PD?	Qualitative surveys	PD plays an important role in teachers' growth, and advances in technology are facilitating new and different forms of PD for teachers. Proposed formats for future online PD that were notably appealing to the teachers in this study included access to a video library, student profiles, online children's book club, and an online community of practice. These results align with the social learning theories. On the other hand, the least popular activities included earning badges for participating in online PD, working in gamified PD and scavenger hunts.	Virtual PD
Pashmforoosh, R., Irby, B., Lara-Alecio, R., & Tong, F. (2023).	Examination of how practicing school leaders develop their instructional leadership practices through the use of the Reflection Cycle included in PD	Phenomenological study of 40 school leaders at the elementary school level in the state of Texas	Practicing school leaders indicated that the discussion and reflection inspired them to reflect on their instructional leadership practices. Reflections included in the PD module established a positive, personal, and individualized approach to influence and transform school leaders' practices. Without transformation of practice based on the new learning, there is little to no improved practice.	Principal PD Principals as Instructional Leaders

Rodriguez, S. (2019)	1. What school district systems of support and personnel are responsible for helping principals grow as leaders? 2. What strategies and practices are used in school districts to provide differentiated professional development and support to principals? 3. What professional development strategies and practices used in school districts are aligned to the CPSEL? 4. What are K-12 principal perceptions of the alignment of professional development they have received?	Qualitative study using interviews and focus groups with a total of 17 principals	Few district strategies and practices that provide differentiation of principal PD based on individual principal needs were reported. The principal responses centered on several district supports that were categorized into five themes. The themes included 1) individual principal support 2) principal group support 3) professional development 4) mentoring/coaching and 5) school accountability support and feedback. Their PD needs mirrored two themes that emerged in identified principal challenges: organizational management and instructional leadership. The principals also reported the need to be provided with opportunities to obtain collegial support and learning with principal colleagues, and the need for individualized principal mentoring and coaching	Principal PD Principals as Instructional Leaders
Rodriguez-Gomez, D., Ion, G., Mercader, C., & Lopez-Crespo, S. (2020)	To identify the factors promoting informal learning strategies, online and face-to-face, used by school leaders as part of their PD	Quantitative online questionnaire to 715 school leaders in Spain	A strong motivation for the position of principal and a positive self-image of professional competencies also stand out as indicators of principals' desire to engage in informal face-to-face learning activities. Schools should promote competence-based systems and structures, in which informal learning strategies become	Principal PD

			relevant as a basis for promoting innovation	
Seddon, K., Postlethwaite, K., James, M., & Mulryne, K. (2012)	What insights can be gained into the learning processes occurring in synchronous online seminars involving experienced educators?	Qualitative case study of recorded webinars for two seminars for teachers in England	Web conferencing tools offer a range of modes of interaction including audio, chat, text, desktop sharing, presentations and video conferencing all of which create the potential for multi-process learning. There was no evidence that, for experienced educators in a PD context, prior knowledge of each other, or skill in the use of technology, were significant factors in promoting productive interaction.	Virtual PD
Sider, S., Maich, K., Specht, J., Treadgold, C., & Winger, H. (2023)	How can web-based case studies provide an effective form of learning for school principals in a professional learning course on special education?	Qualitative analysis of data from 109 school leaders who participated in the online case studies course	Principals indicated that the case studies were authentic and reflected real experiences in schools. 95% of respondents indicated that the online, web-based interface of the cases was effective. The flexibility that web-based case studies provide, allowing principals to engage in professional learning in a flexible-delivery fashion, can complement formal support that universities, professional organizations, and school boards can provide. Web-based PD can be adjusted and differentiated even after being published.	Virtual PD Principal PD
Steinberg, M. P., & Yang, H. (2020)	Does principal PD affect teacher retention? Does principal PD improve teacher effectiveness? Does	Quantitative analysis of data from Pennsylvania Inspired Leaders (PIL) program	Principal PD had the greatest impact on teacher effectiveness when principals completed PIL induction during their first two years in	Principal PD

	PD development improve student achievement?		the principalship. PIL improved teacher effectiveness (in math) and student math achievement, and the effects of PIL induction on teacher effectiveness were concentrated among the most economically and academically disadvantaged schools in Pennsylvania.	
Westberry, L. & Zhao, F. (2021)	Is there a discrepancy in confidence levels between the principals' perceived and reported abilities? Is there a discrepancy in confidence levels between the superintendents' perceived and reported abilities of their principals? What PD needs do principals ask for the most? Do the needs reflect the current shift in focus to instructional leadership?	Quantitative survey to 1,100 principals and 85 superintendents in South Carolina	The top three rank-ordered needs among all participants are "understanding and using data to inform instruction," "understanding all elements of instructional leadership to include alignment, assessment, and observation," and "understanding how to effectively progress monitor as an administrator." Principals' self-reported confidence scores are significantly higher than their leadership ability scores. This difference may be attributed to confidence in one or more of the three domains of leadership, but not in the domain of instructional leadership.	Principals as Instructional Leaders Principal PD
Yeigh, T., Lynch, D., Turner, D., Provost, S. C., Smith, R., & Willis, R. L. (2019)	The influence stemming from school leadership as an important consideration in relation to school improvement in Australia.	Quantitative survey of 22 principals	Principals perceive themselves as time poor, in terms of the demands placed on them and their ability to provide school improvement leadership, especially in the areas of strategic renewal and teaching innovation. Findings suggest that effective leadership is primarily about how to	Principals as Instructional Leaders

			make the most of limited resources, budgets and other elements that a school has access to, in order to align the overall capabilities of the school to the larger vision and goals of the school as a whole.	
Zepeda, S. J., Parylo, O., & Bengtson, E. (2014)	What are the current practices in PD for principals? In what way (if any) do the principles of adult learning manifest themselves in current principal PD?	Qualitative case study of four school districts in Georgia	All districts agreed that accountability demands of recent years have changed their perspectives about an approach to leader PD. Effective PD was described as job embedded and more comprehensive than a single workshop or a learning session. A common trait among the districts was combining formal and informal types of PD coming from sources that were internal and external to the school system.	Principal PD

Legend:

Principals as Instructional Leaders
Educational Leadership
ND-Not Determined
Principal PD
Professional Development
Virtual PD
Hybrid PD

Appendix B: Request for Superintendent Permission Email

Subject Line: Request to Conduct Study

Dear Superintendent or Director of Research:

I am a doctoral candidate in the Virginia Tech Educational Leadership Program under the supervision of my advisor and committee chair Dr. Carol A. Mullen. The purpose of my study is to identify how principals and principal supervisors utilize virtual, hybrid, and in-person professional development (PD) to develop principals' instructional leadership skills and the perceived benefits and challenges of participating in PD specifically designed for the principalship role. The secondary purposes are to identify the perceived impact principal PD may have on principals' instructional leadership practices and student achievement. A qualitative study will be the approach to the research to provide an understanding of the principal experience with PD from both the principal and principal supervisor perspectives.

May I receive your permission to send a demographic survey to principals from the elementary and secondary schools and to division-level principal supervisor(s); and to interview the identified principal and principal supervisors that fit the selection criteria? Based on data from the Virginia Department of Education, your school division is categorized as rural or suburban which is the selection criteria for the study. I have developed an interview protocol to use when conducting one-on-one, semi-structured interviews with participants. A review of the literature was utilized to develop the interview questions. The demographic survey I developed will collect background information and experiences of the participants prior to the interview to guide the purposeful selection of principal and principal supervisor participants for the interview to include principals with varied years of experience and school levels.

All responses will remain anonymous as the participants, schools, and school divisions will not be identified. The data collected from the participants will be confidential. The results of the study will be analyzed and shared with you and the participants. Participation is voluntary.

The practical goal of this study is to understand principal PD practices that would be beneficial to principals and assist with developing instructional leadership capacity. The findings may be used when planning future PD for principals and determining the best format to use for PD. With your support, I have included a consent form for permission to conduct this study with principals and principal supervisors who are selected to participate. A copy of the signed form will be shared with you. Thank you in advance for your consideration.

Sincerely,
Rebecca B. Hall
Doctoral candidate
Virginia Polytechnic Institute and State University
[contact information removed]

Appendix C: Informed Consent for the Demographic Survey and Interview

Information Sheet for Participation in a Research Study

Principal Investigator: Dr. Carol A. Mullen, PhD
IRB# and Title of Study: IRB#23-428 A Qualitative Investigation into How Professional Development Supports Principals as Instructional Leaders

You are invited to participate in a research study. This form includes information about the study and contact information if you have any questions.

I am a doctoral candidate in the Virginia Tech Educational Leadership Program at Virginia Tech, and I am conducting this research as part of my coursework.

- **WHAT SHOULD I KNOW?**

If you decide to participate in this study, you will complete a survey and interview. As part of the study, you will be asked to participate in a 10-minute demographic online survey to purposefully select participants for interviews with varied backgrounds and experiences. You may be asked to participate in a scheduled 30-minute interview through the online platform, Zoom. Participants who live in the Richmond region may choose an in-person or Zoom interview. As part of the interviews, you will be asked to answer open-ended questions about virtual, hybrid, and in-person principal professional development experiences, benefits, and challenges to participate, and perceived impact of PD on instructional leadership skills. Virtual interviews will be audio recorded and transcribed through Zoom. In-person interviews will be digitally recorded and transcribed. Handwritten notes by the researcher will be taken in addition to recordings and transcriptions to be utilized in data analysis.

The study should take approximately 40 minutes of your time (10 minutes for the survey and 30 minutes for the interview).

We do not anticipate any risks from completing this study.

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so.

➢ CONFIDENTIALITY

We will do our best to protect the confidentiality of the information we gather from you, but we cannot guarantee 100% confidentiality.

Any survey or interview data collected during this research study will be kept confidential by the researchers. The researchers will give each survey participant a numerical code to protect the privacy of the participant. Your interview will be audio recorded and transcribed using Zoom or through a digital recorder. The researchers will code the transcripts using the numerical codes for participants. The recordings will be uploaded to a secure password-protected computer in the researcher's office. The researchers will maintain a list that includes a key to the codes. Recordings will be destroyed after the data collection process has been completed. The master key and the transcriptions will be stored for three years after the study has been completed and then destroyed.

If you have any questions or concerns about the research, please feel free to contact the researcher, Rebecca B. Hall or the Principal Investigator, Dr. Carol A. Mullen, PhD at the College of Liberal Arts & Human Sciences, School of Education, Educational Leadership Program at Virginia Polytechnic Institute and State University (336-944-3737 or camullen@vt.edu). You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact the Virginia Tech HRPP Office at 540-231-3732 (irb@vt.edu).

Please print out a copy of this information sheet for your records.

➢ WHO CAN I TALK TO?

If you have any questions or concerns about the research, please feel free to contact the researcher, Rebecca B. Hall or the Principal Investigator, Dr. Carol A. Mullen, PhD at the College of Liberal Arts & Human Sciences, School of Education, Educational Leadership Program at Virginia Polytechnic Institute and State University

You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding

your rights as a research participant, contact the Virginia Tech HRPP Office at 540-231-3732 (irb@vt.edu).

Please print out a copy of this information sheet for your records.

Appendix D: Introductory Email Requesting Participation in the Demographic Survey

Subject Line: Request to Participate in Demographic Survey

Dear Educator:

I am Rebecca Hall, a doctoral candidate in the Virginia Polytechnic Institute and State University Educational Leadership Program under the supervision of my advisor and committee chair Dr. Carol A. Mullen. I am sending this email to ask if you would participate in my current research on the virtual, hybrid, and in-person professional development (PD) is utilized to develop principals' instructional leadership skills, the perceived benefits and challenges of participating in PD specifically designed for the principalship role, and the perceived impact principal PD may have on principals' instructional leadership practices and student achievement.

As a principal or principal supervisor in a rural or suburban school division in Virginia, your insight would be helpful to provide state and district leaders with information related to principal PD formats, including benefits, challenges, and how PD can support the development of instructional leadership skills. This research may be used as a resource for current and future practitioners when determining topics and formats for the PD of principals. Please click on the link to the survey found below. Based on your survey responses, you may be invited to participate in a 30-minute virtual interview. Participation is voluntary. Thank you for your consideration in participating in this research.

Sincerely,
Rebecca B. Hall
Doctoral candidate
Virginia Polytechnic Institute and State University
[contact information removed]

Appendix E: Principal and Principal Supervisor Demographic Survey

Principal and Principal Supervisor Survey

Principal Professional Development

The purpose of this study is to identify how principals and principal supervisors from Virginia utilize virtual, hybrid, and in-person professional development (PD) to develop principals' instructional leadership skills and the perceived benefits and challenges of participating in PD specifically designed for the principalship role.

This survey will collect demographic data. Completing this survey will help me utilize demographic data to purposefully select principals and principal supervisors to interview who represent a variety of backgrounds and experiences. Please answer the following demographic survey questions if you are 18 and older and are willing to participate in the study.

(Obtain consent using the information sheet at the beginning of the online survey. If the participant selects, I Agree, the participant will continue with the survey. If the participant selects, I Do Not Agree, the participant will exit the survey.)

Please answer the following demographic survey questions.

1. Current position:
   A. Principal
   B. Associate Principal
   C. Assistant Principal
   D. Supervisor of Principals
   E. Other:_____

2. Number of years as a principal:
   A. 0
   B. 1-3
   C. 4-7
   D. 8-12
   E. 13-18
   F. 19-25
   G. 26-30
   H. 31 or greater

3. Principal of school type (select all that apply):
   A. Preschool
   B. Elementary
   C. Middle
   D. High
   E. Other

F. Not applicable

4. Number of years as a supervisor of principals:
   A. 0
   B. 1-3
   C. 4-7
   D. 8-12
   E. 13-18
   F. 19-25
   G. 26-30
   H. 31 or greater
   I. Not applicable

5. Supervisor of principals of what school type(s) (select all that apply):
   A. Preschool
   B. Elementary
   C. Middle
   D. High
   E. Other
   F. Not applicable

6. Have you served as a principal in more than one school division?
   A. Yes
   B. No

7. How is your current school division classified?
   A. Rural
   B. Suburban

8. Level of Education:
   A. Bachelor
   B. Master
   C. Educational Specialist
   D. Doctorate
   E. Other

9. Age range:
   A. 29 or younger
   B. 30-39
   C. 40-49
   D. 50-59
   E. 60-69
   F. 70 or greater

10. Gender:
    A. Male
    B. Female
    C. Other

11. Race and or Ethnicity (Select all that apply):
    A. Black or African American
    B. Asian or Asian American
    C. White or Caucasian
    D. Hispanic or Latino
    E. American Indian
    F. Alaska Native
    G. Other

Appendix F: Email Requesting Participation in the Interview

Subject Line: Request and Consent to Participate in the Research

Dear Educator:

My name is Rebecca Hall and I am a doctoral candidate in the Virginia Polytechnic Institute and State University Educational Leadership Program under the supervision of my advisor and committee chair Dr. Carol A. Mullen. I am sending this email to ask if you would participate in my current research on the virtual, hybrid, and in-person professional development (PD) is utilized to develop principals' instructional leadership skills, the perceived benefits and challenges of participating in PD specifically designed for the principalship role, and the perceived impact principal PD may have on principals' instructional leadership practices and student achievement. I have been given permission by the superintendent to conduct this research.

As a principal or principal supervisor in a rural or suburban school division, your input would be essential to provide an understanding of principal PD practices that would be beneficial and assist with developing instructional leadership capacity. The findings may be used when planning future PD for principals and determining the best format to use for PD.

Please complete the attached consent form if you would consider participating in a 30- to 45-minute one-on-one, semi-structured interview for this study. Each interview will be conducted, transcribed, and recorded through Zoom. If you live within the Richmond region, you may select to have your interview conducted in person or through Zoom. Participation is voluntary. Thank you in advance for your consideration in participating in this research.

Sincerely,

Rebecca B. Hall
Doctoral candidate
Virginia Polytechnic Institute and State University
[contact information removed]

Appendix G: Alignment of Interview Questions to Literature Review and Research

Interview Questions for Principals on PD and Supporting Sources

Interview Question	Source(s)
1. Describe your recent experiences with virtual PD designed specifically to support the development of your instructional leadership skills. How often were the sessions? What platforms were utilized?	Charteris et al. (2021); Irby et al. (2022); Parsons et al. (2019); Rodriguez-Gomez et al. (2020); Seddon et al. (2012); Sukarno & Sumarwati (2020)
2. Describe your recent experiences with hybrid PD designed specifically to support the development of your instructional leadership skills. How often were the sessions? What platforms were utilized?	Eddy et al. (2021); Hatcher et al. (2022)
3. Describe your recent experiences with in-person PD designed specifically to support the development of your instructional leadership skills. How often were the sessions?	Darling-Hammond et al. (2022); Grissom et al. (2021); Lavigne et al. (2016); Manna (2015)
4. Do you prefer participating in in-person, virtual, or hybrid PD? Why?	Buxton & de Muth (2012); Ermeling et al. (2015); Zepeda et al. (2014)
5. Provide an example of when the content learned in a PD session has improved your instructional leadership skills.	Acton (2021); Cox & Mullen (2023); Darling-Hammond et al. (2022); Grissom et al. (2021); Herrmann et al. (2019); Manna (2015); Steinberg & Yang (2020)
6. Explain how acquired instructional leadership skills might have had an impact on student achievement. If the skills learned have not had an impact on student achievement, why?	Acton (2021); Darling-Hammond et al. (2022)
7. What are the benefits of participating in PD designed specifically for principals?	Lazenby et al. (2020); Levin et al. (2021); Westberry & Zhao (2021); Zepeda et al. (2014)
8. What are the challenges of participating in PD designed specifically for principals?	Lazenby et al. (2020); Levin et al. (2021); Westberry & Zhao (2021); Zepeda et al. (2014)
9. Is there anything else you can tell me that would add to this study?	

Interview Questions for Principal Supervisors on PD and Supporting Sources

Interview Question	Source(s)
1. Describe the types of virtual PD provided to principals to support the development of their instructional leadership skills. How often were the sessions? What platforms were utilized?	Charteris et al. (2021); Irby et al. (2022); Parsons et al. (2019); Rodriguez-Gomez et al. (2020); Seddon et al. (2012); Sukarno & Sumarwati (2020)
2. Describe the types of hybrid PD provided to principals to support the development of their instructional leadership skills. How often were the sessions? What platforms were utilized?	Eddy et al. (2021); Hatcher et al. (2022)
3. Describe the types of in-person PD provided to principals to support the development of their instructional leadership skills. How often were the sessions?	Darling-Hammond et al. (2022); Grissom et al. (2021); Lavigne et al. (2016); Manna (2015)
4. Provide an example of when the content provided in a PD session improved principals' instructional leadership skills.	Acton (2021); Cox & Mullen (2023); Darling-Hammond et al. (2022); Grissom et al. (2021); Herrmann et al. (2019); Manna (2015); Steinberg & Yang (2020)
5. What is an example of when the content learned in a principal-specific PD session may have had a positive impact on student achievement? Describe the PD session (format, length, audience, etc.)	Acton (2021); Darling-Hammond et al. (2022)
6. What are the benefits of principals participating in PD designed specifically for them?	Lazenby et al. (2020); Levin et al. (2021); Westberry & Zhao (2021); Zepeda et al. (2014)
7. What are the challenges of principals participating in PD designed specifically for them?	Lazenby et al. (2020); Levin et al. (2021); Westberry & Zhao (2021); Zepeda et al. (2014)
8. How does your school division select which PD principals attend? Include any opportunities for choice in PD.	Darling-Hammond et al. (2022); Zepeda et al. (2014)
9. Is there anything else you can tell me that would add to this study?	

Appendix H: Interview Protocols

Interview Protocol for Principals

Interview protocol for principals
Interviewer: Thank you for participating in the interview to help me collect information on principal professional development practices. The purpose of this study is to identify how principals and principal supervisors from a rural and suburban school division in Virginia utilize virtual, hybrid, and in-person professional development (PD) to develop principals' instructional leadership skills and the perceived benefits and challenges of participating in PD specifically designed for the principalship role. Secondary purpose is to identify the perceived impact principal PD may have on principals' instructional leadership practices and student achievement. There are 9 questions to answer, and we have 30- to 45 minutes for this interview. The interview is being recorded and transcribed through Zoom (or digitally recorded for in-person interviews) and will be sent to each participant for verification.
1. Describe your recent experiences with virtual PD designed specifically to support the development of your instructional leadership skills. How often were the sessions? What platforms were utilized?
2. Describe your recent experiences with hybrid PD designed specifically to support the development of your instructional leadership skills. How often were the sessions? What platforms were utilized?
3. Describe your recent experiences with in-person PD designed specifically to support the development of your instructional leadership skills. How often were the sessions?
4. Do you prefer participating in in-person, virtual, or hybrid PD? Why?
5. Provide an example of when the content learned in a PD session has improved your instructional leadership skills.
6. Explain how acquired instructional leadership skills might have had an impact on student achievement. If the skills learned have not had an impact on student achievement, why?
7. What are the benefits of participating in PD designed specifically for principals?
8. What are the challenges of participating in PD designed specifically for principals?
9. Is there anything else you can tell me that would add to this study?
Interviewer: Thank you for participating in this interview. Within two weeks of the interview, each participant will receive the transcription for verification.

Interview Protocol for Principal Supervisors

Interview protocol for principals
Interviewer: Thank you for participating in the interview to help me collect information on principal professional development practices. The purpose of this study is to identify how principals and principal supervisors from a rural and suburban school division in Virginia utilize virtual, hybrid, and in-person professional development (PD) to develop principals' instructional leadership skills and the perceived benefits and challenges of participating in PD specifically designed for the principalship role. The secondary purpose is to identify the perceived impact principal PD may have on principals' instructional leadership practices and student achievement. There are 9 questions to answer, and we have 30- to 45 minutes for this interview. The interview is being recorded and transcribed through Zoom (or digitally recorded for in-person interviews) and will be sent to each participant for verification.
1. Describe the types of virtual PD provided to principals to support the development of their instructional leadership skills. How often were the sessions? What platforms were utilized?
2. Describe the types of hybrid PD provided to principals to support the development of their instructional leadership skills. How often were the sessions? What platforms were utilized?
3. Describe the types of in-person PD provided to principals to support the development of their instructional leadership skills. How often were the sessions?
4. Provide an example of when the content provided in a PD improved principals' instructional leadership skill.
5. What is an example of when the content learned in a principal-specific PD session may have had a positive impact on student achievement? Describe the PD session (format, length, audience, etc.)
6. What are the benefits of principals participating in PD designed specifically for them?
7. What are the challenges of principals participating in PD designed specifically for them?
8. How does your school division select which PD principals attend? Include any opportunities for choice in PD.
9. Is there anything else you can tell me that would add to this study?
Interviewer: Thank you for participating in this interview. Within two weeks of the interview, each participant will receive the transcription for verification.

Appendix I: IRB #23-428 Approval Letter

Division of Scholarly Integrity and
Research Compliance
Institutional Review Board
North End Center, Suite 4120 (MC 0497)
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-3732
irb@vt.edu
http://www.research.vt.edu/sirc/hrpp

MEMORANDUM

DATE: April 18, 2023

TO: Carol Ann Mullen, Rebecca Bienvenue Hall

FROM: Virginia Tech Institutional Review Board (FWA00000572)

PROTOCOL TITLE: A Qualitative Investigation into How Professional Development Supports Principals as Instructional Leaders

IRB NUMBER: **23-428**

Effective April 18, 2023, the Virginia Tech Human Research Protection Program (HRPP) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104(d) category (ies) 2(ii).

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit an amendment to the HRPP for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

https://secure.research.vt.edu/external/irb/responsibilities.htm

(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:

Determined As: **Exempt, under 45 CFR 46.104(d) category(ies) 2(ii)**
Protocol Determination Date: **April 18, 2023**

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

Appendix J: CITI Certificate

CITI PROGRAM

Completion Date 18-Sep-2021
Expiration Date 17-Sep-2024
Record ID 44979823

This is to certify that:

Rebecca Hall

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Social & Behavioral Research
(Curriculum Group)
Social & Behavioral Research
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Virginia Polytechnic Institute & State University (Virginia Tech)

CITI
Collaborative Institutional Training Initiative

101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?we4ce7e1e-d1a0-492f-8a13-2e7c79a11706-44979823