The Principal's Role in Ensuring the Professional Development of Teachers

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A Capstone

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APPROVAL OF THE CAPSTONE PROJECT

This Capstone Project has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Education.

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EXECUTIVE SUMMARY

Teacher professional development is imperative and the key to improving schools (Borko, 2004; Desimone, 2009; Desimone & Stuckey, 2014; Penuel et al., 2007) and school principals are critical to the successful professional development of their staff (Hallinger, 2018; Hitt & Tucker, 2016; Leithwood et al., 2015; Mullen & Hutinger, 2008). However, ensuring effective professional development is provided to all teachers is complex and has not proven to be easily accomplished (Dagen & Bean, 2014; Wei et al., 2009). This capstone focused on the principal's thought process and decision making that leads to teachers receiving quality professional development that meets their needs.

All schools taking part in this study were identified as being "bright spots" in their large suburban school district. The purpose was to uncover what led to the success in these schools so we can learn from these practices and replicate them elsewhere. Three research questions guided the study and focused on triangulating the existing research with principal decision making and teacher perceptions. With professional development playing an important role in the development of our teachers, I felt it important to determine what professional development opportunities were seen as supportive and what characteristics of professional development were deemed by teachers and principals as less impactful.

The literature examined for this study included research on best practices in professional development as well as adult learning theory. It was important to consider what is known about quality professional development and how adults learn to ensure

teachers were provided with learning experiences that would be worthwhile. Additionally, leadership practices were examined as they relate to the professional development of teachers. The conceptual framework for this study was derived from a combination of these three topics: quality professional development characteristics, adult learning theory, and leadership practices.

The study began by exploring the results of an Employee Survey, specifically three questions that related to the teacher satisfaction with their professional development. These data were available from all elementary schools, and the schools with the greatest satisfaction in the areas of professional development were selected for consideration. Ultimately, five schools were identified for further study. Principals and teachers were interviewed, and interviews revealed what was considered to be quality professional development and the steps taken to ensure teachers had these learning opportunities. The research was targeted at determining the practices a principal uses to enact a system of professional development that is also perceived as positive by the teachers in their school.

Findings from the study highlighted the importance of the role of the principal in shaping the professional development plan for the school and the individual considerations taken for teachers. The key decisions made by the principals in the study were shaped by their values and beliefs. The disposition of the principal determined the plan for professional development, and these values and decisions made by principals did not go unnoticed by the teachers. Teachers echoed the thoughtful considerations that

were made, recognized the leadership, and were grateful for the opportunities they were provided.

This research indicates that despite there being a limited number of assigned professional development days in the school calendar, limited budget, and other nuances in the decisions related to professional development, principals taking a thoughtful about their approach can produce quality learning experiences for their teachers.

From this examination of the practices these five elementary principals use to ensure teachers are receiving effective professional development we can extrapolate practices to adapt and use in other schools. In that spirit, the following recommendations are made: (a) school district leaders should provide continued professional development to principals; (b) school district leaders should provide advance determination of district goals, staff calendar, and professional development opportunities; (c) school leaders should establish learning as a norm; (d) school and district leaders should focus on key aspects of quality professional development with regular evaluation; and (e) school leaders should use the adults in the school as coaches.

DEDICATION

I dedicate this capstone to my family who have supported me through this long process and never wavered in their belief that I would finish.

- To my husband, Andrew, who has been my rock and my champion. Every time I have an idea of something more I'd like to do; you always tell me to go for it! You see only the best in me, and I'm forever grateful to have you in my life.
- To my children: Mason, Claire, and Sophia. You were supportive and patient as I typed away. My goal was to never let you feel that I missed anything that was important to you while pursuing this endeavor. I'm certain I failed in that at times, yet you always said you were proud of me. You have always been my biggest cheering squad, and I love you all so much.

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I also want to thank the BEST cohort ever . . . Chris, Christina, Craig, Crystal, Eileen, Jaime, Mark, Nick, Pamela, Staci, and Sue. Your friendship and support through classes and beyond have been such a gift. I walk away from UVA with not only this education but with life-long friends.

Thank you to the principals and teachers who took part in this study. I know your time is so valuable, and you have so little of it. Yet, you talked with me and answered my interview questions during an especially hectic school year. I am so grateful for what you give to students and how you do so with such generosity and passion.

I could never have done any of this without the support of my family. Andrew, Mason, Claire, and Sophia – you are my whole heart. I am so grateful to you for believing in me, cheering me on, and giving me the time I needed to complete this work. Thank you for your love. I never take it for granted.

Finally, I wish to acknowledge all educators. You work hard to be your best selves each day, and I see you. Your school communities are so fortunate to have you, and I hope you never forget it.

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CHAPTER ONE: INTRODUCTION

It is widely believed that the most effective educators are those who can develop the minds of their students and that teachers must have a strong and flexible knowledge of the subjects they teach (Borko, 2004) so they can best cultivate this learning. One way in which teachers seek to improve their content knowledge, instructional practices, and student learning is through professional development (PD; Wei et al., 2009). However, not all PD is equally impactful in terms of student growth. Improving PD modalities is essential to transforming teachers' instructional practices and improving student learning (Wei et al., 2009), and Odden (2011) has argued that effective PD should be "school-based, job-embedded, ongoing, and focused on curriculum taught rather than just a one-day workshop" (p. 98). Despite this knowledge, many U.S. teachers are only provided traditional forms of PD (e.g., one-time workshops; Wei et al., 2009).

Researchers have put forward high-quality models for teacher PD that include differentiated options for teachers that are aligned to the pacing of lessons (Birman et al., 2000; Desimone & Garet, 2015), yet the characterizing aspects of such models are not always upheld at the school or district level (Borko, 2004; Wei et al., 2009). Though "one-shot" workshops have been proven to be ineffective, some districts still use this model because they lack the capacity and efficiency, be it human or fiscal resources, to design a more comprehensive plan (Desimone & Stuckey, 2014; Desimone & Garet, 2015). Consistent job-embedded PD, or teacher learning that is grounded in day-to-day teaching practices, is also difficult to manage as a result of limited time, money,

leadership preparation, school infrastructure, and outside resources (Jones & Dexter, 2016; Wei et al., 2009). Large school districts, especially, may face challenges with the implementation of these ideal models as it is more difficult to have a complete view of the PD opportunities available throughout the district. Even if these barriers are surmounted, teacher responses to PD are often mixed (Desimone & Stuckey, 2014; Desimone & Garet, 2015), making it difficult to guarantee that the learning done by teachers within the walls of the school is making the desired impact on student learning.

Throughout this paper and in the research cited, the terms staff development, training, professional learning, and professional development are used interchangeably. I use the term professional development when referring to any of these and take an inclusive approach to PD as a means of including any learning opportunities that engage teachers in strengthening their practice. This can include, but is not limited to, workshops, conferences, seminars, study groups, professional learning communities (PLCs), lesson study, and coaching. Additionally, throughout this capstone, I use the term "leader." Though there may be many forms of leadership in schools, for the purpose of this paper, when the term "leader" is used, I am referring to the principal or administrator unless specifically stated otherwise.

Problem of Practice

Context

Rover County Public Schools (RCPS)[1] is a large district spread across suburban and urban areas with distinctly different socioeconomic status levels and corresponding needs of the student populations. In RCPS, there is a disparity in student achievement

[1] Pseudonyms have been used to protect confidentiality for personal and school names and for any public documents used in my research.

across elementary schools. Many schools are high performing whereas others have been identified as needing greater support. Thus, because some schools face student achievement and instructional growth challenges, to address these needs would likely require high-quality PD aligned to the specific contextual needs of the schools.

A 2017 summary of a district-level PD study revealed organizational and structural characteristics that make addressing the need for PD a challenge. It also uncovered that the quality of PD experiences in the district was inconsistent and revealed there were large discrepancies in teachers' satisfaction with the amount and timing of the PD they were receiving (RCPS, 2017). Such inconsistencies in PD experiences from school to school could undermine district-wide school improvement efforts.

Leaders of RCPS face several obstacles to offering professional development for teachers, the largest of which is the issue of human resources. Additionally, as in many schools across the nation, the shortage of substitutes and the limited number of PD days affect learning opportunities. Schools across the district are not equitable in terms of the human resources available to facilitate or create structures for professional learning. Currently, approximately 54 of the 142 elementary schools have instructional coaches on staff who are dedicated to the PD of teachers through coaching and feedback.

In RCPS, some opportunities for PD are facilitated by central office staff. These learning sessions may focus on new initiatives, such as curriculum and resource changes, rather than the school goals determined by each site's stakeholders. Due to the sheer number of teachers in the district, the learning opportunities offered may take the shape of traditional workshops, a form that has been characterized in the literature as ineffective (Odden, 2011; Wei et al., 2009).

Effective PD should be designed and facilitated in all schools (Odden, 2011; Wei et al., 2009). However, in RCPS, as well as in many other districts across the United States, school leaders are often left to create their own PD plans, resulting in fragmented or insufficient opportunities for teachers. Even when a principal's attempt to find PD opportunities is successful, the duration of the PD is often too limited for it to be impactful (Wei et al., 2009).

Despite the disparities, there are schools in the district that are showing promising data in terms of teacher satisfaction of their PD (RCPS, 2018, 2020). The results of a district-level survey indicated there are pockets of effective PD across the school district. As PD approaches are not standardized and instead largely left to individual teachers or the autonomy of school-level administration, this presents an opportunity to delve more deeply into the practices of schools in which PD is perceived positively. Any study that could begin to highlight the practices of schools that provide PD in highly effective ways could be extremely valuable to any school district, especially if these practices could later be incorporated in schools that struggle to meet these teacher needs. By further exploring the role of the principal and the practices they use to structure, design, and provide PD, one may uncover the critical elements for PD success.

Problem of Practice

With a significant number of teachers in RCPS reporting dissatisfaction with their PD experiences, not perceiving the PD efforts as adding value to their expertise (RCPS, 2018, 2020), it is clear there is a need to improve upon the PD provided to teachers. For example, while job-embedded PD has been shown to be the most influential type of educator learning (Odden, 2011), days specifically devoted to professional development

in RCPS are limited. When schools are effective in developing staff capacity, it is largely because they have effective principals (Bjork, 2000; Leithwood et al., 2004). Therefore, I wanted to learn about the practices of principals whose PD approaches are perceived favorably by their teaching staff, to consider whether these effective practices can be replicated. To uncover these exceptional practices, it was important to examine the perspectives of both the teachers and the principals.

I designed my capstone to examine principals' approaches to designing and offering PD in schools where teachers rated it highly on the RCPS Employee Survey. I sought a better understanding of successful PD as it is practiced within a sample of schools in RCPS, its impact on teachers' practice, and the key contributing factors to successful implementation. Learning from successful sites may yield insights that can be of benefit to leaders of schools in which surveys indicated dissatisfaction.

Research Questions

The following research questions guided the data collection at the schools identified:

1. What are leader and teacher perceptions about the ways in which RCPS professional development meets the needs of teachers?
2. How do RCPS teachers perceive that professional development influences their instructional and assessment practices?
3. What practices do principals use to provide teachers with effective professional development in RCPS?

Rationale/Purpose

Teachers are the cornerstone of education, and "no organization that is as talent dependent as education can be successful unless it takes developing its teacher talent very seriously" (Odden, 2011, p. 91). Within recent school reform efforts, PD has been recognized as an important link between the standards movement and student learning (Wei et al., 2009). Guskey (2000) referred to PD as "those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students" (p. 16). Therefore, PD is an essential component of school improvement, yet many of the learning opportunities being offered to teachers fail to incorporate the characteristics of effective PD (Wei et al., 2009).

In 2001, Garet et al. conducted the first large-scale empirical comparison of the effects of different characteristics of PD. Using a sample of 1,027 mathematics and science teachers, the study revealed key characteristics of effective PD, including (a) collective participation, (b) content focused, (c) active learning, (d) coherence, and (e) sustained duration (Garet et al, 2001).

In follow-up research, Desimone and Garet (2015) reported on the findings from more recent U.S. research that tested the five characteristics with an emphasis on the results of rigorous randomized control trials. Several insights were gained from this work that have helped refine how these characteristics are considered. These insights include (a) changing procedural classroom behavior is easier than improving content knowledge or inquiry-based instructional techniques, (b) teachers vary in their response to the same PD, (c) PD is more successful when it is linked to classroom lessons, (d) PD research and

implementation must allow for urban contexts (e.g., student and teacher mobility), and (e) leadership plays a key role in supporting and encouraging teachers to implement in the classroom the ideas and strategies they learned in the PD. A deep understanding of these components is paramount for a principal to design or select effective PD for their teachers.

Principals are in a unique position to create the conditions in their schools that foster both teacher and student learning (Mullen & Hutinger, 2008). Principals are key players who provide leadership in the development of teachers through advocacy, support, and influencing others (Bredeson, 2000). Researchers investigating core leadership practices that have a positive impact on student learning have identified two practices that, in particular, connect directly to PD: *developing people* and *improving the instructional program* (Louis et al., 2010). Developing people refers to building the capacity of knowledge and skills among the staff as well as their disposition (Hitt & Tucker, 2016; Leithwood & Louis, 2012). Improving the instructional program, which is shown to have the greatest effect on students and includes practices that will improve the core of schools, refers to providing instructional support and buffering staff from the distractions that get in the way of teaching and learning (Leithwood & Louis, 2012). One way to develop people and improve the instructional program is to ensure the enactment of high-quality PD practices.

To explore the principal's role in enacting PD practices, it is important to connect the leadership role of the principal with the characteristics of effective PD. Exploring theories of leadership and effective PD can provide a better understanding of how leadership practices might contribute to adult learning and effective PD characteristics for

the PD to be perceived by teachers as worthwhile and for it to influence teacher practices. If the PD that principals select, design, or deliver is not effective, research indicates little will change in terms of teacher practices and student learning (Birman et al., 2000; Garet et al., 2001; Wei et al., 2009).

Information gleaned from this capstone will be used to inform other leaders in the district in the hopes that they will be able to implement effective job-embedded PD. Principals play a major role in developing practices that result in job-embedded PD. The decisions they make in terms of teaming, master schedules, staffing, and budgeting for professional learning all affect teachers' ability to receive PD (Bredeson, 2000). In addition, the climate of a school influences whether teachers are available for learning and whether they view the PD opportunities presented by the principal as a legitimate means of professional learning.

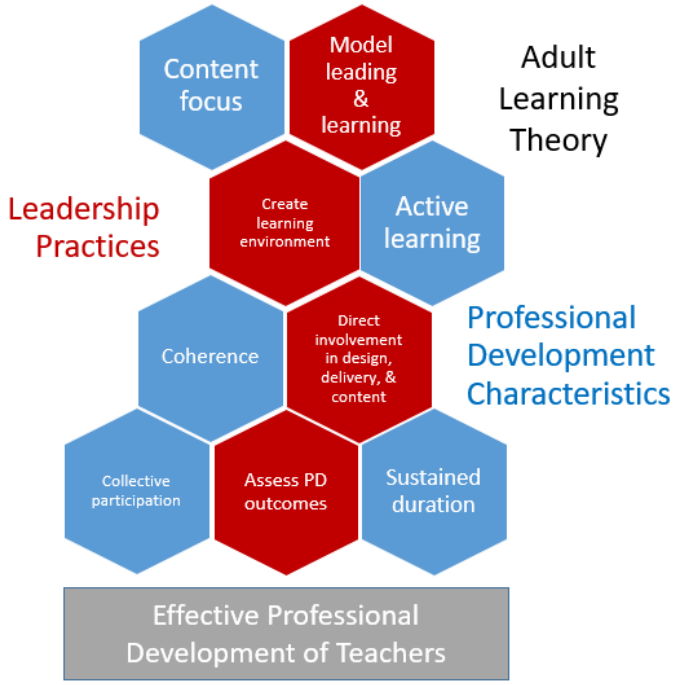
Conceptual Framework

The conceptual framework (see Figure 1) for this study combined the features of effective PD identified by Desimone and Garet (2015) with four areas of practice through which principals have a substantial impact on PD as identified by Bredeson (2000). The leadership practices include (a) model leading and learning; (b) create a learning environment; (c) direct involvement in the design, delivery, and content of PD; and (d) assess PD outcomes. The five features of effective PD include (a) content focused, (b) active learning, (c) coherence, (d) sustained duration, and (e) collective participation (Desimone & Garet, 2015). Considering the data through the lens of these two constructs grounded within the research of adult learning theory allowed me to investigate my

hypothesis that when leaders' practices include providing high-quality PD, teachers will perceive the PD to be effective and consider changes in their teaching practices.

Figure 1

A Conceptual Framework for Leadership Practices Contributing to Effective Professional Development



Methods

This study used exemplary cases to investigate the research questions. I used qualitative methods to examine the PD experiences school leaders provide for teachers at the five school sites with the highest teacher satisfaction results for school leaders' PD and feedback according to the Employee Survey data from the RCPS school district from the 2017–2018 school year as well as the 2019–2020 school year. Note that there was no Employee Survey given for the 2018–2019 school year, as this survey was historically

given every other year. An additional selection criterion was that the schools needed to have had a consistent principal for the years of the survey and during the data collection. I interviewed a purposive sampling of teachers to identify the systems leaders use to offer effective job-embedded PD. Purposive samples allow researchers to select subjects who represent a specific population, ensuring certain types of individuals will be included in the study (Berg, 2007). Additionally, I conducted interviews with each school's principal to identify the practices they used to ensure effective job-embedded PD for staff.

Delimitations

This study included only schools that had the same principal in place for the duration of the survey years as well as the data collection. In addition, I limited the analysis to only five schools that ranked at the top of the Employee Survey on a few selected items. Therefore, this study is limited to success analysis. Finally, focus was only on elementary schools in the RCPS district.

Limitations

A limitation of this study was that I was reliant on a secondary data source, the RCPS Employee Survey data from the 2017–2018 and 2019–2020 school years, as this survey was not conducted in the 2018–2019 school year. The Employee Survey is a self-report survey completed by teachers. Also, the perceptions of teachers could have changed since the time of the survey, as the Employee Survey was conducted prior to the COVID-19 pandemic and the data collection for the purpose of this study occurred during the pandemic. Additionally, the schools identified may not be generalizable for other schools or even for the entire district, as I only pulled data from the schools where PD has been found to be a positive experience for teachers and chose only five schools

from the larger district. Moreover, it is uncertain whether the teachers selected for the interviews were among the teachers who participated in the survey or who rated the PD as successful in the Employee Surveys, and there was a chance that those selected may have no longer felt satisfied with their PD opportunities.

Summary

I designed this research to examine the practices elementary school principals use to ensure teachers are receiving effective PD. The research was targeted at determining the practices a principal uses to enact a system of PD that is also perceived as positive by the teachers in their school.

CHAPTER TWO: LITERATURE REVIEW

To examine leadership practices that support effective PD for teachers, it is important to define PD, explain why it is important, and delineate between effective and ineffective PD. It is also valuable to acknowledge the common practices in schools and examine the impact school leaders have on the growth of teachers. Therefore, I organized this literature review to provide this information in terms of how it helped answer the following key questions:

- What is effective PD?
- What are the common practices in PD?
- How is PD evaluated?
- Why is PD important?
- What leadership practices support the professional learning of teachers?

Methods

To identify literature for this review, I searched electronic databases, specifically EBSCO education databases that I could access through the University of Virginia library system. In addition, I searched Google Scholar. Key terms used for these searches included “professional development,” “staff development,”, “professional learning”, “leadership professional development,” “adult learning,” “formal professional development,” and “informal professional development.” I also used the references listed in the articles I found to identify additional sources.

Teacher Professional Development

Guskey (2000), a longtime researcher of PD, refers to PD as "those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students" (p. 16). When professional development is of high quality, it will nourish the growth of educators and result in improved student achievement (Speck & Knipe, 2005). To ensure teachers are provided quality professional development, it is important to identify the characteristics of effective PD and adult learning theory, examine the practices that exist for the creation of and evaluation of professional development, and reveal the importance of PD for teacher success.

Characteristics of Effective Professional Development

Understanding what makes PD effective is important if we are to understand the success or failure of teacher learning opportunities. Odden (2011) asserted that "ongoing teacher development is a critical aspect of strategic talent management in education; unfortunately, it is often given inadequate or ineffective attention" (p. 102). Traditional PD activities such as workshops and conferences tend to be short, one-time opportunities that have been determined to be less successful and do not have much influence on changing teaching practices as compared to nontraditional PD activities. These consist of mentoring, coaching, peer observation, and lesson study (Birman et al., 2000; Garet et al., 2001; Odden, 2011; Wei et al., 2009).

A job-embedded practice for PD that allows teachers to study teaching strategies, relevant research, and work together to make decisions on how to influence student achievement is recommended (Wei et al., 2009). Hirsh (2004) defined teachers' job-

embedded learning as adults working in learning communities with goals aligned to school or district goals. She identified a number of its characteristics, including how changes in teaching practices are more likely to take place when teacher learning is facilitated daily (Hirsh, 2004; Wei et al., 2009). Teachers benefit from a job-embedded model of PD because it provides frequent opportunities to apply learning and engage in learning that allows them to grapple with content and instructional processes; therefore, they are more likely to transform their teaching practices rather than layer new strategies on top of the old (Mullen & Hutinger, 2008; Wei et al., 2009).

In addition to the aforementioned characteristics, research examining data from more than 1,000 teachers revealed the following five important characteristics of effective PD: (a) collective participation, (b) content focused, (c) active learning, (d) coherence, and (e) sustained duration (Desimone & Garet, 2015; Desimone & Stuckey, 2014; Garet et al., 2001). The original 2001 study was conducted with a sample of 1,027 mathematics and science teachers. In addition to identifying these key characteristics this study inspired subsequent research establishing the efficacy of PD when these five characteristics are present (Desimone & Garet, 2015; Desimone & Stuckey, 2014; Gersten et al., 2010; Penuel et al., 2011). Next, I describe these characteristics in more detail due to their inclusion in the study's conceptual framework.

Collective Participation

As a critical feature of PD, collective participation can be accomplished when teams of teachers from the same grade, department, or school attend together (Desimone, 2009; Desimone & Stuckey, 2014). This is considered preferable because "when whole grade levels, schools or departments are involved [in PD], they provide a broader base of

understanding and support at the school level" (Wei et al., 2009, p. 6). Providing ample opportunity for teachers to collaborate with one another allows time for reflection and inquiry into teaching practices. Speck and Knipe (2005) also stated PD must build on shared knowledge in a collaborative setting. Creating a PD opportunity in which teachers sit and receive information at the same time is not considered collaborative. Instead, ideal ongoing PD would include opportunities for relationship and trust building in order for teachers to recognize and acknowledge the expertise of their colleagues.

As a means of collective participation in PD, there has been an emphasis on job-embedded and collaborative teacher learning (Darling-Hammond et al., 2017; Desimone & Garet, 2015; Guskey, 2000; Wei et al., 2009). Collaborative approaches to PD have been found to lead to school change that extends beyond the walls of the classroom (Darling-Hammond et al., 2017). Teachers, when learning collaboratively, can serve as a support group for one another as they explore practices. Wei et al. (2009) pointed to the efforts to establish PLCs in U.S. schools in contrast to the many decades of teachers' individualized work. Their research revealed that by allowing for more continuous learning during the school day around curriculum planning, grading, teaching practices, and problem solving, teachers had more opportunities to create sound practices and shared responsibility.

Content Focused

Content-focused PD concentrates on subject matter content and how students develop an understanding of that content. Desimone and Garet (2015) identified the importance of focusing on content as a core feature of effective PD. A teacher's pedagogical content knowledge is central to the teacher's effectiveness and therefore a

very important aspect to pay attention to when planning for PD (Dagen & Bean, 2014; Leithwood et al., 2004). PD that is content focused provides opportunities for active learning and is more likely to have evidence of coherence (Desimone & Garet, 2015; Desimone & Stuckey, 2014). Content-focused PD can provide teachers with the opportunity to explore new curriculum or elements of student learning, as well as study student work (Darling-Hammond et al., 2017; Polly, 2015). Garet et al. (2001) noted "professional development that focuses on specific content and how students learn that content has larger positive effects on student achievement outcomes, especially achievement in conceptual understanding" (p. 925).

Active Learning

Another core feature of effective PD concerns the importance of teachers' active engagement. Teachers should have the opportunity to collaborate, plan, practice, and reflect as a means to grow professionally. "Active learning" suggests a deviation from more traditional learning that is typically lecture-based, sit-and-listen, and generic, toward interactive activities that are tied to student artifacts and highly contextualized learning (Darling-Hammond et al., 2017).

One way to ensure teachers are actively engaged is to provide opportunities for coaching, observation, and feedback (Darling-Hammond et al., 2017; Desimone & Garet, 2015; Desimone & Stuckey, 2014; Garet et al., 2001). Guskey (2000) advised that PD sessions should be supplemented with follow-up activities to provide the "feedback and coaching necessary for the successful implementation of new ideas" (p. 23). In addition, activities such as collaborative lesson planning, reviewing student work, classroom visits,

and reviewing case studies provide teachers the opportunity to be engaged in learning that can be continued over time (Desimone & Garet, 2015; Desimone & Stuckey, 2014).

Wei et al. (2009) recognized that if new learning is to take root, "ongoing and specific follow up is necessary to help teachers incorporate new knowledge and skills into classroom practice" (p. 14). Teachers who receive coaching are more likely to enact the desired teaching practices than are those who attend traditional models of PD and do not have coaching as a follow up. School-based coaching can ensure active learning takes place during the school day and is ongoing (Wei et al., 2009).

Coherence

Fostering coherence is another core feature of effective PD and refers to the extent to which the PD is aligned to teacher, school, and district goals (Desimone & Garet, 2015; Desimone & Stuckey, 2014). Coherence is paramount to teacher engagement and buy-in. If there is a "coherent set of goals, they can facilitate teachers' efforts to improve teaching practice, but if they conflict, they may create tensions that impede teacher efforts to develop their teaching in a consistent direction" (Garet et al., 2001, p. 927). Hirsh (2004) and Wieczorek (2017) posited that an effective PD plan cannot be written separately from a district or school improvement plan. Instead, school-level professional development plans function best when district and school goals are embedded. A PD plan that is results-driven, standards-based, and focused on daily work begins with the end in mind and then identifies the knowledge and skills needed to help teachers ensure their students achieve (Hirsh, 2004).

Sustained Duration

Garet et al. (2001) determined that longer forms of intensive PD have a greater impact than shorter forms of PD. Nontraditional PD, such as coaching, mentoring, and study groups as described above, is more likely to have a longer duration, as meaningful learning opportunities require time and quality implementation (Darling-Hammond et al., 2017). Additionally, these types of reform activities often take place during the school day, and they may be more responsive to teacher needs and easier to sustain over time (Garet et al., 2001).

Odden (2011) suggested ensuring 10 days of a teacher's normal work year are pupil free and dedicated to PD. However, Akiba (2012) uncovered in a study of 577 math teachers that the average amount of mathematics-focused PD was only 28.4 hours or 3.5 days per year, which falls well below the recommendations made by Odden (2011) and is more representative of what is consistently found in U.S. schools (Wei et al., 2009).

Adult Learning and Development Theory

As leaders, principals are responsible for building teachers' capacity. To do so requires an understanding of adult learning (Glickman et al., 2017), yet common practices in PD often fail to take into consideration adult learning or adult development theories (Drago-Severson, 2006; Merriam, 2017; Merriam & Bierema, 2014; Rohlwing & Spelman, 2014). Frequently, those providing PD to teachers adopt the same strategies used with students in the classrooms that do not consider the ways in which adults make meaning, or differentiate on that basis, including what needs they have to be able to engage in and embrace their new learning and the challenges they face (Drago-Severson, 2006; Knowles et al., 2015; Rohlwing & Spelman, 2014; Terehoff, 2002).

Malcolm Knowles's early work in adult learning in the 1970s has been closely examined and relied upon over time when considering that adults learn differently than children. Knowles (1980) proposed the following principles to consider as a basis for adult learning:

- Adults are self-directed; therefore, they should have a say in the content and process of their learning.
- Adults have experiences to draw from; therefore, their learning should focus on adding to what they have learned in the past.
- Adults seek practical learning; therefore, content should focus on issues related to their work or personal life.
- Adult learning should be centered on solving problems rather than on memorizing content.

Speck and Knipe (2005) also described how adults learn best, and, more importantly, the implications for PD. They posited PD plans that are created with the following adult learning needs in mind will be better received by teachers:

- Adults will commit to learning when they believe the objectives are realistic and important for their personal and professional life.
- Adults want to be the origin of their own learning and should always have some control over the what, who, how, why, when, and where of their learning.
- Adults will resist activities they see as an attack on their competence. PD must be structured to reduce fear of judgment.

- Adult learners do not automatically transfer learning into daily practice. Coaching and other follow-up activities are often needed for the learning to be sustained.
- Adults need to receive feedback on the results of their efforts.
- Adults should participate in small group activities that provide opportunities to share, reflect, and generalize their learning and experiences.

Though there are many variations in terms of theories, models, or principles as they relate to adult learners, it is evident through the abundance of research that the implications for application are considerable. When positioned along with the characteristics of high-quality PD as described earlier, the adult learning principles can provide further guidance to school leaders. Specifically, distinctions in the areas of adults' self-concept, experiences, readiness to learn, and orientations to learning are important to consider when designing PD.

Common Practices in Professional Development

In the past century, much of the PD teachers received occurred through face-to-face interactions. However, with advancements in technology, PD has been transformed and teachers have so many more options for what, where, and how they receive PD (Hill et al., 2013; Mraz & Kissel, 2014). Yet, though the formats used for PD have evolved, most PD opportunities are still determined by the district's needs or initiatives, are not sustained over time, and take place with little to no formal evaluation (Hill et al., 2013).

Leaders of states and local school districts have found ways to incentivize participation in PD (e.g., through licensure renewal credits and stipends [Jaquith et al., 2010]), and digital platforms for PD now enable teachers to receive PD more

conveniently than ever before (Hargreaves, 2014). PD delivered by way of technology can be highly collaborative and online platforms can provide teachers with PD that otherwise would not be available to them (Hargreaves, 2014). However, studies have shown many of the learning opportunities provided to teachers do not demonstrate the characteristics of high-quality PD reviewed above regardless of the platform (Dagen & Bean, 2014; Desimone & Garet, 2015; Wei et al., 2009). More often than not, the format of the PD sessions provided to teachers is traditional (Desimone, 2009; Desimone & Garet, 2015; Griffith et al., 2014), yet research shows traditional formats of PD are less effective than reform approaches (Birman et al., 2000; Darling-Hammond et al., 2017; Desimone & Garet, 2015). Traditional PD such as workshops, conferences, institutes, and courses tend to be short, "one and done" sessions—meaning that they do not span over time and are often created for a larger audience rather than differentiated by grade level or content area (Birman et al., 2000; Desimone & Garet, 2015).

In many school districts across the United States, it is rare to find PD that promotes active learning among participants (Birman et al., 2000; Desimone & Garet, 2015). Opportunities for teachers to engage in the learning process and think about what they are doing are instead replaced with passive learning that is often designed by a topic expert who presents to a large crowd with few opportunities for interaction among participants and little time for discussion and processing (Mraz & Kissel, 2014; Sparks, 2002). Thus, teachers are faced with new ideas that may not seem practical in nature and are often not implemented with fidelity.

Job-embedded PD has been shown to have the greatest impact on teacher learning (Darling-Hammond & McLaughlin, 1995; Hirsh, 2009; Odden, 2011); however, because

teachers in the United States generally have between 3 and 5 independent hours a week dedicated for lesson planning, it can be difficult to find time for job-embedded PD in many school sites (Odden, 2011). A school structure with so little planning time could lead to approximately 1,080 hours of teaching time per year, far more than the number of hours spent in other countries (Wei et al., 2009). This excessive number of teaching hours does not allow the opportunity for job-embedded PD or time for teachers to plan and reflect with their colleagues as a part of their professional learning.

An ineffective yet pervasive practice surrounding teacher learning is having disjointed, arbitrary "PD days" during the school year. PD events that occur on 3 or 4 days of the school year are not enough to provide educators with opportunities to learn (Dagen & Bean, 2014; Guskey, 2000). Despite this research, many school calendars allot only a few days to PD in a school year. In fact, in one study, few teachers reported participating in more than 24 hours of PD on content or pedagogy during a year (Birman et al., 2000). Using technology to deliver PD may offer an off-hours solution to this concern, leading to greater opportunities for teachers to learn virtually regardless of the number of days allotted by the school or district (Quatroche et al., 2014).

The Evaluation of Professional Development

Variance in the design and delivery of PD can make it difficult to evaluate. However, Guskey (2014) suggested that with careful planning and explicit questioning, PD practices can be assessed for success when clear goals have been set. Guskey's five critical levels of PD evaluation help to provide a critical look at whether the PD has had a positive influence on classroom practices, leading to improvements in student learning. The five critical levels are (a) participants' reactions, (b) participants' learning, (c)

organization support and change, (d) participants' use of new knowledge and skills, and (e) student learning outcomes (Guskey, 2000, 2014).

Though PD can be evaluated, the method and thoroughness of the evaluation are imperative to obtaining a clear picture of the professional learning. The evaluation of all five levels (Guskey, 2000) is important, as the information found in one level does not provide information about the effectiveness of the next level (see Table 1). Unfortunately, most evaluations of PD are only done at level one and rarely move beyond (Guskey, 2000, 2014). If evaluation begins and ends at the first level, the results often only indicate whether the participants "liked" the topic or the presenter. Whether new information was assimilated into the classroom practices is never determined nor are the supports needed to implement the new practices with fidelity (Guskey, 2014; Guskey & Yoon, 2009).

Table 1

Five Levels of Professional Learning Evaluation

Evaluation level	What questions are addressed?	How will information be gathered?	What is measured or assessed?	How will information be used?
1. Participants' reactions	• Did they like it? • Was their time well spent? • Did the material make sense? • Will it be useful? • Were the refreshments fresh and tasty? • Was the room the right temperature? • Were the chairs comfortable?	• Questionnaires or surveys at the end of the session	• Initial satisfaction with the experience	• To improve program design and delivery
2. Participants' learning	• Did participants acquire the intended knowledge and skills?	• Paper-and-pencil instruments • Simulations • Demonstrations • Participant reflections • Participant portfolios	• New knowledge and skills of participants	• To improve program content, format, and organization

Evaluation level	What questions are addressed?	How will information be gathered?	What is measured or assessed?	How will information be used?
3. Organizational support and change	• Were sufficient resources made available? • Were problems addressed quickly and efficiently? • Was implementation advocated, facilitated, and supported? • Were successes recognized and shared? • Was the support public and overt? • What was the impact on the organization? • Did it affect organizational climate and procedures?	• Minutes from follow-up meetings • Questionnaires • Structured interviews • District and school records • Participant portfolios	• The organization's advocacy, support, accommodation, facilitation, and recognition	• To document and improve organizational support • To inform future change efforts
4. Participants' use of new knowledge and skills	• Did participants effectively apply the new knowledge and skills?	• Questionnaires • Structured interviews • Participant reflections • Participant portfolios • Direct observations • Video or audiotapes	• Degree and quality of implementation	• To document and improve the implementation of program content
5. Student learning outcomes	• What was the impact on students? • Did it affect student performance or achievement? • Did it influence students' physical or emotional well-being? • Are students more confident as learners? • Is student attendance improving? • Are dropouts decreasing?	• Student records • School records • Questionnaires • Structured interviews • Participant portfolios	• Student learning outcomes • Cognitive (performance and achievement) • Affective (attitudes and dispositions) • Psychomotor (skills and behaviors)	• To focus and improve all aspects of program design, implementation, and follow-up • To demonstrate the overall impact of PD

The Importance of Teacher Professional Development

PD has been recognized as an important link between the standards movement and student learning and is an essential component of school improvement (Wei et al., 2009). The demand for more qualified teachers has compelled policymakers, researchers, and educators to respond to the issue of teacher deficiencies by organizing PD programs (Bayar, 2014). Research has continually revealed the development and learning of teachers as a key to improving schools (Borko, 2004; Desimone, 2009; Penuel et al., 2007).

The conventional model of the impact of PD is a three-step process: PD alters teacher knowledge, which then alters teacher practices, and ultimately alters student learning (Gore et al., 2017; Kennedy, 2016). A strong correlation between the impact of PD and student learning was identified in Hattie's (2009) meta-analysis synthesizing 537 studies relating to student achievement involving 47,000 people. Results revealed PD had an effect size of 0.62, where an effect size of $d = 1.0$ indicates an increase of one standard deviation and is typically associated with positive change that advances student achievement by 2 to 3 years. Table 2 lists five meta-analyses in which the impact of PD on student achievement was identified as medium to high (i.e., 0.4 medium to 0.6 high). In two of these studies, an effect size at or above 0.8 indicated a large positive impact on student achievement. Though Hattie's synthesis showed variances in the impact of PD on different content areas, it remains clear from Hattie's analysis that PD can have a significant impact on student outcomes.

Table 2

Meta-Analysis Effect Size Results Measuring the Impact of Professional Development

Author	Year	Number of studies in each meta-analysis	Effect size
Joslin	1980	137	0.81
Harrison	1980	47	0.80
Wade	1985	91	0.37
Tinoca	2004	35	0.45
Timperley, Wilson, Barrar, and Fung	2007	227	0.66

Note. Copyright Hattie (2009).

Though a direct link from PD to student achievement is not consistent in the research, Yoo (2016) found a relationship between PD and student achievement by identifying teacher efficacy as the linking construct (see Figure 2). Yoo found that as effective PD is provided, teachers make changes to their teaching practices. Those changes in teaching practices affect teacher self-efficacy, helping teachers to be more capable of influencing student learning.

Figure 2

Logic Model Depicting Effects of Professional Development

Yoo (2016) determined that improvement in self-efficacy is a result of PD. Yoo found significant changes in the self-efficacy dimensions of instructional strategies, classroom management, and student engagement. Teachers come into the profession lacking the skills and knowledge to competently teach all content areas (Chang, 2015), making it important for the PD system to fill in these gaps and improve teachers'

pedagogical content knowledge, leading to higher teacher efficacy. With high teacher efficacy influencing student achievement, it is evident that PD can have a significant impact on student learning (Gore et al., 2017; Tschannen-Moran & Barr, 2004; Yoo, 2016).

Even with these studies, researchers cite a persistent lack of studies directly linking PD to student learning outcomes (Borko, 2004; Wei et al., 2009). The struggle to link PD and student achievement is often a result of the myriad contexts for PD, determining the appropriate measure of student achievement, and the use of different measures from study to study (Borko, 2004; Kennedy, 2016). Though some rely on conventional standardized assessments, others develop a measure that corresponds to the PD program. Another difficulty with linking PD to student outcomes results is the theory that teachers improve practices over time, and therefore changes in teaching practice are difficult to equate to a specific learning opportunity (Horn, 2010). Regardless, the idea that PD can foster improvements is still widely accepted (Gore et al., 2017; Kennedy, 2016), and therefore important to study further.

The Role of the Principal in Teacher Professional Development

PD is an essential component of school improvement. Principals are in a unique position to create the conditions in their schools that foster both teacher and student learning and can have a significant impact on the learning environment (Hallinger, 2018; Hitt & Tucker, 2016; Leithwood et al., 2015; Mullen & Hutinger, 2008). Principals are key players who provide leadership in the development of teachers through advocacy, support, and influencing others (Bredeson, 2000). The principal is considered a major factor influencing student learning, and the chance of improving student learning is

remote without successful leadership (Grissom et al., 2021; Louis et al., 2010; Leithwood & Riehl, 2003). Thus, principals' role and responsibilities regarding PD are often critically examined.

Leadership Practices That Support the Professional Learning of Teachers

Successful leaders employ a core set of practices, including developing people and improving instructional programs (Bredeson, 2000; Hitt & Tucker, 2016; Leithwood & Louis, 2012), and principals must have a great number of skills to effectively lead and develop others (Patton et al., 2015). The concept of developing people refers to building the capacity of knowledge and skills of the staff as well as their disposition (Hitt & Tucker, 2016; Leithwood & Louis, 2012; Leithwood & Riehl, 2003). Improving the instructional program refers to providing instructional support and buffering staff from the distractions that get in the way of teaching and learning; this improvement is also considered to have the greatest effect on students (Leithwood & Louis, 2012). One way to develop people and improve the instructional program is to establish and implement a strong PD plan.

School principals exercise significant influence on the PD of teachers. Bredeson's (2000) research consisting of 48 structured interviews with teachers, principals, and other school administrators revealed four areas in which principals have a substantial impact on the PD of teachers: (a) model leading and learning; (b) create a learning environment; (c) direct involvement in the design, delivery, and content of PD; and (d) assess PD outcomes. These four areas of impact helped to frame my conceptual framework.

Principal as Leader and Learner

Many researchers have stressed the significance of the leader learning alongside the teachers (Bredeson, 2000; Hitt & Tucker, 2016; Mullen & Hutinger, 2008; Robinson et al., 2008). This co-learning stance for the principal has been characterized as the principal as lead learner in the school (Tilford, 2010). Hitt and Tucker (2016) believed this to be key as it "strengthens the leader's knowledge in curriculum, instruction, and assessment, strengthens teacher perceptions of the leaders' credibility, and equips leaders to be a source of knowledge" (p. 18). Robinson et al. (2008) analyzed the effect sizes from six different studies, some of which were meta-analyses, on leadership and found the highest of the leadership dimensions was *promoting and participating in teacher learning and development,* with a mean effect size of 0.84. These results emphasize to school leaders the importance of being more involved in leading adult learners and learning alongside their teachers. A principal who acts as both leader and learner values learning and commits to it themselves, modeling desired behavior, but it also allows for a better understanding of how to organize and create the structures within a school for teacher learning to occur (Reutzel & Clark, 2014). They understand the connections among PD, student learning, and school quality, allowing for continued learning to become an integral part of the school culture through communicating the value of and purpose for the PD while keeping the focus and goals on student learning (Bredeson, 2000). By taking an active role in PD on a regular basis, the principal can develop trust with the staff and send a message that the development of effective instruction is a mutual task of the leader and teachers (Bjork, 2000).

Principal Creates a Learning Environment

Principals must create a supportive environment where teachers are encouraged to grow and improve in their practice. Mullen and Hutinger (2008) argued that "by developing environments committed to the professionalization of teachers, principals confront the isolation that many classroom teachers experience" (p. 277). Creating a learning environment involves setting high expectations for learning and helping teachers to believe in themselves as professionals. Regarding PD, leaders must articulate the purpose, structure, and impact of the PD. Additionally, research has indicated interpersonal skills like listening and giving a voice to teachers improve the adult learning environment (Bredeson, 2000). These school culture factors are imperative; however, without the structural pieces of the environment in order, teacher PD is at risk of failure (Reutzel & Clark, 2014).

Principals' instructional decisions ensure whether PD is available to teachers (Mullen & Hutinger, 2008). For example, Principals can make certain the school calendar allows time for weekly meetings and that teachers have the human and material resources to support them. Organizing time for teachers to attend trainings and seminars while guaranteeing they have access to current research on subject content, instructional methods, and effective practices is the responsibility of the leader (Mraz & Kissel, 2014). Principals must provide financial support for conferences, travel, sub pay, tuition, or stipends when appropriate and schedule time and space for teachers to work and learn together (Bredeson, 2000). Preserving both cultural and structural aspects in the school communicates a clear message that teacher growth and student learning are non-negotiables (Mullen & Hutinger, 2008).

Principal Involves Teachers in Design, Delivery, and Content

Research has revealed that when teachers are involved in the development or planning of their PD, they are more likely to participate, and principals have more success when they work with teachers in the PD process and are not autocratic in their approach (Bredeson, 2000). Bredeson's (2000) research revealed that teacher involvement in the design, delivery, and content of PD is more likely to ensure the PD meets the needs of teachers and has an influence on their thinking and practice. Additionally, by involving teachers, the PD is more likely to be aligned with school goals and teacher needs while keeping the focus on student learning. Wieczorek (2017) also concluded that the most effective PD activities are teacher directed, content focused, and involve a critical mass of teachers in the building and found that principals who encourage teacher growth and are highly collaborative in the development of PD have greater success with PD effectiveness and are more successful in changing practices.

Having choice in PD also helps to ensure there is interest in attending and participating. Autonomy has been linked to intrinsic motivation, and intrinsic motivation "corresponds to a great number of positive outcomes such as decreased anxiety, daily well-being, and enhanced academic performance" (Brooks & Young, 2011, p. 49). People who are intrinsically motivated believe themselves to be able to initiate their own activities and make their own choices. This level of self-determination ensures learners are invested in the work they are doing. When conditions are created such that a person's interest is piqued, achievement is pursued for the sake of learning (Brooks & Young, 2011). In order to remain engaged in the PD activities, learners must have interest in that task, according to Wentzel and Wigfield (1998). Therefore, providing autonomy and

involving teachers in the PD process is an important act of a principal (Bredeson, 2000; Brooks & Young, 2011; Youngs & Lane, 2014).

Principal Assesses Outcomes of Professional Development

Evaluating PD is a task that is often overlooked (Guskey, 2000; Odden, 2011). Guskey (2000) found that most evaluations involve little more than a satisfaction survey. He asserted that good leaders instead monitor PD regularly by participating in the PD themselves, conducting focused classroom walk-throughs, collecting surveys, and participating in discussions with staff. Odden (2011) acknowledged that although the complexities of PD endeavors make it difficult to conduct accurate evaluations, with careful planning and explicit questioning, PD practices can be assessed.

As discussed earlier, Guskey (2000) explained that the most successful PD plans can be evaluated for success when clear goals have been set. Guskey's five critical levels of PD evaluation help to provide a critical look at whether the PD has had a positive influence on classroom practices, leading to improvements in student learning. The five critical levels according to Guskey are (a) participants' reactions, (b) participants' learning, (c) organization support and change, (d) participants' use of new knowledge and skills, and (e) student learning outcomes. These critical levels form a helpful evaluation frame that principals can use to enact iterative PD improvements (see Table 1).

Leadership Practices and Professional Development Outcomes

Thus far I have tied the repertoire of leadership practices recommended for principals to the characteristics for high-quality PD, showing how they are congruent and within the range of expectations inherent in the practices. However, the kind of high-intensity, job-embedded collaborative learning that is most effective "is not a common

feature of professional development across most states, districts, and schools in the United States" (Wei et al., 2009). This indicates there are yet more leadership practices to be cultivated among school leaders. Wieczorek (2017) postulated principals are responsible for being aware of, facilitating, and engaging with teachers' PD processes and experiences in the school, and Guskey (2000) warned "that notable improvements in education almost never take place in the absence of professional development. At the core of each successful educational improvement effort is a thoughtfully conceived, well-designed, and well-supported professional development component" (p. 4). However, many of the learning opportunities being offered to teachers fail to meet the characteristics of effective PD (Dagen & Bean, 2014; Tallerico, 2014; Wei et al., 2009). It is not enough to simply design and provide PD; a school administrator must be willing to remove any roadblocks that prevent the implementation of what is learned (Reutzel & Clark, 2014).

Conclusion

To explore the principals' role in PD, it is important to marry the leadership role of the principal with the characteristics of effective PD. By exploring both the theories of leadership and effective PD, the principal can have a clear understanding of adult learning and effective PD characteristics for the PD to be valuable to teachers and influence their classroom practice and student learning.

Despite the research base that has been discussed thus far, it is important to consider scholarly critiques of the principal's role in PD. Much work can be done to determine how to measure a teacher's content knowledge and thus determine their PD needs. Additionally, how does a principal obtain balance over teacher autonomy in

choosing PD while also ensuring they are choosing PD that will support them in their areas of weakness? In most cases, a principal's hands are tied regarding district-planned PD days, the number of which in RCPS does not meet the suggested duration by research (Odden, 2011). Therefore, further research on what principals are doing in RCPS to still meet the needs of the teachers is important. Furthermore, because of the disconnect between the selection, planning, and facilitation of PD and its evaluation, it is not known whether some of the features of quality PD are weighted more heavily than others and whether the absence of one of these features would still allow for a quality experience.

The research is clear that though many factors contribute to the success of a school, leadership is the catalyst to true school improvement (Hitt & Tucker, 2016; Leithwood et al., 2015; Tallerico, 2014). The research is also clear that to promote instructional improvement and growth in student learning, teachers' PD must be coherent, sustained over time, provide active and collaborative learning, and remain focused on content (Akiba, 2012; Desimone & Garet, 2015; Garet et al., 2001). What is not known are the specific practices leaders use to provide such PD to their teachers.

National efforts to improve student academic achievement have ignited a reevaluation of existing models of teacher PD. This movement is designed to change PD from a stand-alone workshop to teacher learning that is embedded in daily practice, is high quality, and directly links to student learning (Mullen & Hutinger, 2008). Principals send the message that learning is central to the efforts of the school when they pay attention to the needs and resources and understand that change takes time. Leaders who follow through on the PD with feedback, coaching, and supportive resources are more

likely to have successful results (Bredeson, 2000; Reutzel & Clark, 2014; Tallerico, 2014).

One common theme found in the literature is that teacher PD is critical to school improvement. However, this PD does not come easily. Principals must work hard and pull from their repertoire of leadership practices and their understanding of quality PD features to ensure the PD activities they choose for their staff are worthwhile. An important step of a leader is to create a culture and structure in the school that will ensure job-embedded learning occurs on a regular basis (Murphy et al., 2006; Tallerico, 2014). Principals must understand their role and the actions necessary for the successful implementation of PD that will be a catalyst for school change and student achievement.

With the principal as a crucial factor in teacher learning, they must prioritize the professional growth of teachers, ensuring they receive developmental opportunities that expand their practitioner knowledge and instructional repertoire (Mullen & Hutinger, 2008). As the expectations of teachers across the nation shift to meet the high demands of educational reform, so too must the approach to PD. Continuous PD is crucial for success in improving teacher practice and student learning (Akiba, 2012). The research cited helps to clarify what actions a principal must take to create a school culture of constant and consistent improvement. Only from these studies can one create a guide for successful PD for current and future leaders.

Research highlights the importance of effective PD for teachers if student learning is to be positively influenced. The principal's role in ensuring effective PD cannot be ignored. In the next section of my capstone, I share my conceptual framework and the methodology I used to research leadership practices and teachers' perceptions of PD.

CHAPTER THREE: METHODS

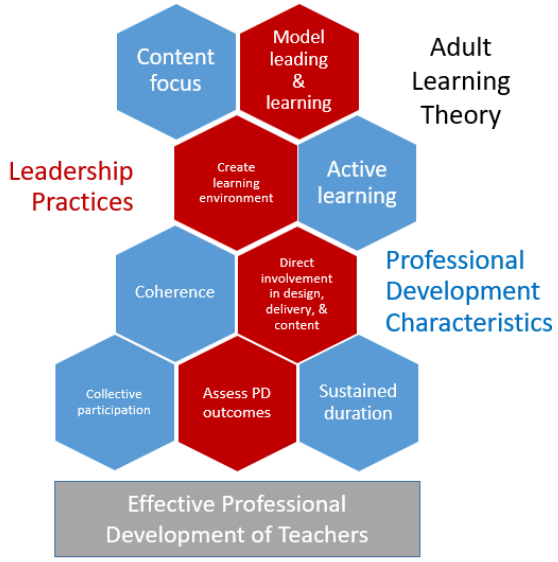
To determine how leaders ensure teachers are receiving the PD they feel they need to be successful, it is necessary to develop an understanding of what teachers and administrators view effective PD to be. Additionally, it is important to identify the practices leaders use to ensure teachers have access to PD. In this chapter, I describe the methods I used to gather this information by first reviewing the conceptual framework and then delving into the approaches I used to gather and analyze data.

Conceptual Framework

My conceptual framework was built around a few main components. The first is the leadership practices that lead to teachers receiving PD, and the second is the characteristics of effective PD while being grounded in adult learning theory. The leadership practices, characteristics of PD, and principles of adult learning theory used in this conceptual framework were detailed in Chapter 2. This conceptual framework reflects the many variables research indicates influence a leader's practices to ensure teachers are exposed to PD of sufficient quality to affect teacher practices (Desimone & Garet, 2015; Garet et al., 2001). Figure 3 is a visual representation of the conceptual framework that guided the interview questions and coding of data.

Figure 3

A Conceptual Framework for Leadership Practices Contributing to Effective Professional Development



Research Design

As the research questions required the perspectives of both teachers and administrators, I used a qualitative multi-site case study to examine the PD experiences school leaders provide for teachers. As I wanted to be cautious about simplifying complex beliefs and perspectives into numbers, I chose to use a qualitative study with interviews. Using semi-structured interviews does not restrict answers to preconceived categories and allows for an interactive approach to gather information from participants (Richards, 2015). This was needed because there are so many ways to describe the types of PD, the characteristics of effective PD, and various leadership practices. A multi-site approach supported the data collection in a district of this magnitude. Using only one site

would have meant identifying an anomaly rather than discovering trends across several schools that could potentially be applicable to other schools in the district.

To identify the case study sites, I reviewed Employee Survey data from the 2017–2018 and 2019–2020 school years to determine which schools had greater numbers of teachers who felt their school administrator offered quality PD. [Note: there was not an Employee Survey given for the 2018–2019 school year.] I selected for deeper investigation the five elementary schools with high teacher satisfaction on three questions related to teacher PD.

The Employee Survey is a confidential online survey administered by the company K12 Insight. The survey consists of questions posed to employees related to their current position and emotional commitment to the organization. K12 Insight, along with the collaboration of an advisory committee from RCPS, worked to refine the survey to make it applicable to RCPS. The survey was sent to all contracted employees, with the exception of substitutes, athletic coaches, and hourly employees. The intent of the survey was to provide leaders of the district and individual schools and offices with information about experiences and perceptions, and to help to determine strengths and areas of need. The survey addresses employment engagement in the areas of shared values, leadership, communication, feedback and recognition, work environment, and career growth and training. Each question in the survey contains five possible responses: *strongly agree*, *agree*, *neither agree/disagree*, *disagree*, and *strongly disagree*.

In addition to the criteria that the school have high scores about teacher PD on the Employee Survey, schools were only included in this study if the principal was consistent since the execution of the surveys to include the year in which the data were collected. I

conducted an interview with the principal at each of the five schools to identify the methods they used to ensure effective PD opportunities were available at their schools. Additionally, I interviewed a purposive sampling of teachers at these five schools to learn of their perspectives of the systems leaders put into place to ensure effective PD.

Research Questions

These research questions guided my interviews with teachers and principals:

1. What are leader and teacher perceptions about the ways in which RCPS professional development meets the needs of teachers?
2. How do RCPS teachers perceive that professional development influences their instructional and assessment practices?
3. What practices do principals use to provide teachers with effective professional development in RCPS?

The first question was designed to uncover what PD is considered to be of quality to teachers and principals. It helped clarify what is helpful about PD and what is not. The second question helped create a throughline for how PD is used. If PD does not influence practice, then can it be considered worthwhile? The third question, and the main focus of this study, examined the principals' approaches to designing and offering PD in schools. These questions were meant to provide a better understanding of successful PD, how to ensure teachers receive it, and as its impact on teacher practice.

Site and Participant Selection

RCPS is a large school district in the United States, serving a diverse student population. As described, I used data from the Employee Survey from the 2017–2018 and

2019–2020 school years to identify the five schools for the study. Specifically, I used the three questions from the survey related to career growth and training:

1. My school leadership identifies opportunities for my professional growth and improvement.
2. My school leadership team/office leadership team regularly gives me constructive feedback to improve my performance.
3. There are leadership opportunities for me in my school or department.

To determine the schools with the highest ratings for the questions above, I conducted the following sorting process with the Employee Survey data:

1. I first blacked out the names of the schools to help guard against researcher bias. The names of the schools were not uncovered until step 6 when it was then necessary to identify the names of the principals of these schools.
2. I found the sum of the average of participants who selected the rating of *agree* or *strongly agree* for each of the three questions used for the purpose of this study.
3. I sorted the data first by question 1, as this question was most closely related to this research study. I color coded the top 20 schools in this category and then adjusted this due to multiple schools having the same average.
4. I then sorted the data by question 2 and color coded the top 20 schools in this category. There was no need for adjustment.
5. I then sorted the data by question 3 and color coded the top 20 schools in this category. Again, no adjustment was necessary.

6. I looked for schools that rose to the top in all three categories and revealed the names of the schools.

With a list of 19 schools, I then identified the schools that had the same principal in place since the 2017–2018 school year survey was conducted. With this narrowed list, I consulted with expert reviewers and leaders in the district for their opinions about which principals were strong leaders for PD. Ultimately, I selected five schools for the study. I contacted the principals at the schools meeting the selection criteria by phone and asked them to participate in this study (see Appendix A). I communicated that these schools would be used as exemplars and the confidentiality of all participants would be ensured. I followed up the phone calls with an email (see Appendix B) to provide that information in writing.

After principals agreed to participate, I then asked them to consider the entire teaching staff and identify a set of teachers whom they believed to have a deep appreciation for the PD they had received, and preferably had been a member of the staff during the time of the Employee Survey. Originally, I had planned to ask for eight names and would select participants from the list. However, due to concerns related to teachers' workloads during the pandemic, I opted to ask principals to provide three to five names. Though I contacted all teachers identified by the principals, not all teachers chose to participate. The identities of the sampled teachers were treated as confidential and remain unknown to the administrators. In the end, a total of 11 teachers agreed to be interviewed for this study—two teachers from four of the schools and three teachers from one school.

Thus, my participants interviewed include five principals and 11 teachers. All principals and teachers were from elementary schools in the school district, two of which

are Title I schools. Additional school demographic data can be found in Table 3. Principals ranged in experience as an administrator from 5 years to 16 years, and teachers ranged in experience from 5 years to 17 years (see Table 4).

Table 3

School Demographic Data

School	# of Students	% English Learners	% Asian	% Black	% Hispanic	% White	% Free/ Reduced Fees
School A	≈575	32	31	6	26	30	32
School B	≈575	20	16	16	16	42	24
School C	≈350	51	4	16	67	12	68
School D	≈575	8	11	9	14	54	9
School E	≈250	35	8	14	59	15	62

Note: School data is approximated and is not associated with the principal list (i.e., School A is not associated with Principal 1) to allow for anonymity

Table 4

Experience Data of Principals and Teachers Interviewed

Participant	Years of experience	Years at current school
Principal 1	16	12
Principal 2	5	5
Principal 3	9	9
Principal 4	5	5
Principal 5	10	7
Teacher 1	17	3
Teacher 2	15	4
Teacher 3	9	5
Teacher 4	16	4
Teacher 5	13	11
Teacher 6	14	6

Participant	Years of experience	Years at current school
Teacher 7	5	5
Teacher 8	13	7
Teacher 9	12	12
Teacher 10	8	8
Teacher 11	21	16

Data Sources

Following the use of the survey to identify schools, interviews were conducted. Data sources are listed in Table 5. As both leaders and instructional staff had important perspectives to lend to this study, data sources included semi-structured interviews with principals and teachers. I conducted semi-structured interviews with the principals who agreed to participate (see Appendix D). Additionally, I conducted semi-structured interviews with two to three teachers from each school for a total of 11 teachers (see Appendix E).

Table 5

Summary of Data Samples

Survey data	Qualitative interviews
District-wide survey conducted in in 2018 and 2020 by outside vendor to identify possible schools	Interviews conducted with principals of selected schools Interviews conducted with teachers identified by principals

Data Collection Process

The semi-structured interviews with principals and teachers all took place within a 30-day period to ensure the discussion was based upon the same level of PD. All participants consented to Zoom interviews and agreed to be recorded. Teacher interviews were conducted in approximately 30 minutes, and principal interviews lasted

approximately 45 minutes. The interviews were subsequently transcribed starting with Zoom's automated transcription, which I then corrected as necessary.

The interview questions for the teachers were focused on their perception of the PD they received and their understanding and viewpoint of the principal's role in their PD opportunities. The interview questions for the administrators were focused on the actions they took to ensure their teachers received quality PD. Teacher and principal beliefs about PD and what makes it of high quality were also revealed through the interviews.

The timeline for the data collection portion of this study was October 2021 with an anticipated finish of November 2021. A complete timeline of the study is shared below:

- The Employee Survey results were reviewed, and schools were identified using the selection criteria following the release of the 2020 Employee Survey results.
- Telephone calls and emails to principals to ask for their agreement to participate, teachers were identified (see Appendix B), and emails to teachers were sent to ask for participation (see Appendix C) in September 2021.
- Semi-structured interviews were conducted and thank you letters were sent to the principals (see Appendix F) and teachers (see Appendix G).
    - Principals were interviewed during the window of October 4–October 18, 2021.
    - Teachers were interviewed during the window of October 18–November 1, 2021.

- As interviews were finished, transcriptions of interviews were completed.
- Coding of data was completed by December 1, 2021.
- Data were analyzed for themes and how answers related to the research question by February 2022.
- Results were written and action communication products were prepared by December 2022.

Data Analysis

Because I wanted to elicit the knowledge and subjective interpretations from principals and teachers in their school setting, I used a qualitative approach (Marshall & Rossman, 2011). I analyzed the data using a structured coding frame related to my conceptual framework (see Figure 1). The leader practices and PD characteristics served as predetermined key words and categories for data coding. I was also open to capturing any additional categories during focused analysis to remain true to qualitative research assumptions (Marshall & Rossman, 2011) and I thus uncovered nuances regarding the categories of quality PD and adult learning.

I coded the interviews with principals according to their leadership practices, listening for evidence of how principals considered their role in the PD provided to teachers. Key words used for coding and categorizing the principal interviews included participation, supportive, high expectations, purpose, choice, autonomy, interest, accountability, and more. I placed these words into categories and compared them to the research from Chapter 2 related to (a) model leading and learning; (b) create learning environment; (c) teacher involvement in design, delivery, and content; (d) assess PD outcomes; and (e) other.

From the interviews with teachers, I coded results into categories according to the characteristics of effective PD: (a) content focused, (b) active learning, (c) coherence, (d) sustained duration, (e) collective participation, and (f) other.

Role of Researcher

As the investigator in qualitative research, I was also the instrument (Chenail, 2011; Maxwell, 2005), and with that came an inevitable level of researcher bias. As an employee of RCPS, I approached this study with some prior knowledge of leaders, teachers, and opportunities for PD. Being a member of the group I was researching had the potential to introduce bias into the study (Chenail, 2011). To guard against this, I only sorted data from the Employee Survey once I blacked out the names of the schools. This allowed me to use only the data and ensure any preconceived notions of school or leader practices were not taken into account when selecting sites. Additionally, all interviews were recorded and transcribed to guard against the possibility of insinuating a response that was not given.

To acknowledge and address potential researcher bias during the analysis phase, I had a peer review the data to ensure my analysis and theme identification were keeping participants' views in the forefront. Additionally, I asked a peer to review my summary statements to ensure they were in alignment with the data rather than exhibiting bias.

Summary

Results of this study were intended to communicate practices around providing PD to teachers that are found to be impactful, thus building the capacity of educators. It was my hope that the results of this study, presented in the next chapter, will serve as a catalyst for principal discussion about leading PD.

CHAPTER FOUR: FINDINGS

To improve the instructional experience of students and positively influence student achievement, teachers must be prepared to use quality instructional strategies. Improving PD modalities is essential to transforming instructional practices and improving student learning (Wei et al., 2009). Though leaders in schools must consider multiple priorities, a focus on developing the human resources to improve the instructional program can have a great effect on students (Leithwood & Louis, 2012). A leader's decision about what PD to provide and to whom may not be easy, yet it is an extremely important one. Therefore, as described in the previous chapter and summarized below, I designed my study to identify the leadership practices that lead to teachers receiving quality PD.

I used data collected from a district-wide survey to identify schools in which there was already a high rate of teacher satisfaction surrounding their PD. From that list, I selected five schools for further examination because their principals had been in place for the last 3 years. I used a qualitative study design for this capstone project. Specifically, I chose to research the practices in place in these five schools in detail using interviews with principals and teachers. Interview protocols can be found in Appendix D and E. Interviews with both groups were intended to answer the following research questions:

1. What are leader and teacher perceptions about the ways in which RCPS professional development meets the needs of teachers?

2. How do RCPS teachers perceive that professional development influences their instructional and assessment practices?
3. What practices do principals use to provide teachers with effective professional development in RCPS?

A description of the findings that emerged from this study is presented in this chapter, grouped by research question. These findings are then compared to the research surrounding leadership practices and quality PD in the next chapter.

I designed my overarching research question to uncover the specific actions principals take to ensure teachers receive quality PD. I assumed that all principals try to support their teachers and want the best for their students. However, based upon the initial survey data, it is apparent that quality PD experiences are being successfully implemented in some schools more than others. Unraveling where the teachers' perceptions and the principals' perceptions connect is helpful in determining how a high level of satisfaction in this area came to be.

Research Question 1: What are leader and teacher perceptions about the ways in which RCPS professional development meets the needs of teachers?

I designed Research Question 1 to uncover the qualities of PD that best meet the needs of teachers. I conducted teacher interviews to examine what characteristics of PD needed to be present in order for teachers to believe the PD was meeting their needs. Additionally, I interviewed principals to determine what types of PD they believed best met teachers' needs. Further examination of teacher and principal perceptions of PD is important as we consider these aspects of PD in the decision-making process for school

leaders. Findings are presented first from the perspectives of the teachers and then the principals.

In the interviews, I asked principals and teachers to describe some of the most impactful professional learning experiences at their schools. The rank order of what they listed was very similar for both groups, with support following PD and a differentiated approach topping both lists. These and the other categories identified in the interviews can be found in Table 6, and further details of these findings follow listed by category.

Table 6

Categories of Professional Development That Meet the Needs of Teachers

	Principals (n = 5)	Teachers (n = 11)
Support following PD session	5	9
Differentiated approach	5	9
Collective participation	3	9
Relative and actionable content	3	9
Engaging learning experiences	4	6

Support Following PD

Of the 16 participants interviewed for this study, 14 shared the importance of receiving support following the professional learning experience. Though support was typically mentioned in the form of reflection and work with coaches, some teachers also recognized the support of their fellow teammates or administrators. In fact, several teachers stressed that if no support was provided to them after attending PD, even a good training could go unused. One teacher expressed how without such support, learning opportunities can be missed:

> I realize at this point in my life that I can't go to something and then just make it happen the very next day. I need time to think about, process the information, and make it my own. Without the coach in my school to support me, I don't think I'd ever give it a try. I know I have my coach to help me process, be my thought partner, and help me follow through with what I learned. They help me make the new learning a reality in my classroom. (Teacher 2)

Additionally, teachers explained that support following PD was important to them to gain feedback as they practiced what they just learned. These teachers recognized that improvement and change take time and they valued feedback as a part of that change process. One teacher explained just how the follow through from a coach extended her learning:

> My coach comes to see us and gives us feedback. She will also model it for us again and again if we need more help. For us, new learning is a cycle. You get this PD, and you aren't expected to get it perfect right after and all by yourself. My coach supports me so I can figure out how to use that new information in my classroom and helps us be more effective with that PD. (Teacher 11)

Overall, nine teachers strongly believed the follow up they received after having attended PD was a critical component to ensuring that what was learned shifted their practices. They viewed the work with coaches as an important extension of PD that supported the learning process and influenced whether the PD met their needs.

Principals also considered the support provided to teachers following a PD session as an important step in the learning process. All five principals expressed that they believed the PD that was most successful for their staff was PD that included work with coaches or teacher leaders. Principals recognized that changes in practices and the implementation of new strategies were less likely to occur if teachers were not supported along the way. One principal shared how the instructional coach provided support to teachers following PD:

> I can't expect anything to change overnight. I can send teachers to a session that has great reviews, but they may come back and just feel overwhelmed thinking

> about doing something different in their classroom. They need to know they have time to practice it and ask questions. My coach is great about setting up coaching cycles with people after they attend PD to help with the new ideas. (Principal 4)

Additionally, within this unanimous agreement regarding needed follow up to PD, several principals saw the possibilities for that PD in terms of the collaborative team time, with one explaining "professional development isn't something that you always have to leave the school to attend" (Principal 1). Two other principals framed effective PD experiences for their staff as learning opportunities they were provided within the school day alongside their colleagues and coaching teams. One of these principals shared how she conceptualized in-school PD as a part of coaches' work with teachers:

> My teachers want to grow and develop. I can't help them do that by waiting for a class to open on a certain topic. Instead, we have goals as a school, and the coaches help teachers learn about that during their planning time, go into their classrooms to model, and then do a gradual release model until the teacher is doing it themselves. All throughout, we work together to provide teachers with feedback on that new skill or strategy. (Principal 3)

Overall, the principals acknowledged that change can be difficult, and it does not always happen after one PD session. They believed PD is a process that occurs over time and involves time to process, practice, receive feedback, and reflect. They credited the work of the collaborative team, coaches, and other adults who work to build capacity among the teachers in their schools to the best meet the PD needs of the staff.

Differentiated Approach

Fourteen participants, including five principals and nine teachers, discussed the importance of PD having a differentiated approach if it is to meet teachers' needs. Both groups recognized it is rare to find PD that will meet the needs of all in attendance. Teachers and principals identified grade-level differences and years of experience as two factors that influenced the need for differentiation.

Teachers expressed that some PD felt as though it was directed toward a different grade level, and therefore, it could be difficult to transfer the information into action in their classrooms. One teacher shared her frustration with attending PD that was not appropriate to her grade level by saying:

> I don't like going to PD sessions when they don't address what happens at my grade level. For example, I teach in upper elementary, and if I have to listen to examples that are all primary or even worse, high school examples, then I just can't picture it. The presenter usually loses me since [the PD] doesn't seem to relate to me and my students. (Teacher 8)

Teachers felt that PD best met when it was differentiated and specific for the specific grade level they teach. Additionally, teachers felt frustrated by some professional learning experiences they were required to attend when they felt they did not need it. Either they shared that they were already teaching in that way or already had that knowledge. "I want to learn something new; not sit through something I already know or am already doing" (Teacher 6). Teachers noted they appreciated the PD that matched where they were in their teaching experience. One teacher mentioned her desire for PD that was a match for her experience level:

> Some teachers need basic things like setting up the classroom. For example, something like getting ready for teaching using a workshop model. That's the kind of learning a newer teacher definitely needs. But I have that and know how to do that already. The PD I need would be the next steps. For example, how to differentiate more in the workshop or next steps in my workshop. (Teacher 5)

Overall, teachers felt the PD that best met their needs was designed with a differentiated approach and was appropriate for the grade level they taught and their current level of knowledge and experience.

Principals agreed that the PD needs of their staff were best met when the PD was differentiated. They shared that their staff was not only more likely to be interested in attending PD that was geared specifically to them, but that it was important enough that

they sought out these opportunities on their own. One principal noted that in requests he received to attend PD, "Teachers rarely come to me asking to attend PD that doesn't have a differentiated approach" (Principal 1). Though they acknowledged that differentiated PD was not always possible with certain compliance sessions, they recognized it was necessary for teachers to feel it was a valuable use of their time. One principal shared that she recognized PD must connect to the work being done by the teachers in the classroom:

> Teachers have a lot going on. I can't send them to PD and hope that they are able to stretch to find a connection to their work. I know that if it is too much of a stretch, then it feels to them that it was a waste of their time. They won't be able to use that information in their classrooms. The PD must be useful and meet them where they are. (Principal 2)

Ultimately, principals admitted that many of the PD opportunities their teachers attended each year were not differentiated to meet the individual needs of all teachers. However, they believed that with a small amount of effort to connect to the grade level and knowledge and experience of teachers, teachers would feel the PD was created with them in mind. In these PD sessions, principals believed teachers' needs were met.

Collective Participation

The practice of attending PD with others was a topic that emerged in both the teacher and principal interviews. Nine teachers expressed that the PD that best met their needs was more likely a learning opportunity included other teachers from their school. They did not feel having one teacher attend and share with the rest of the school or team worked as a PD learning plan. One teacher shared how such "turn-around training" approach to PD was rarely effective:

> When only one team member goes [to a training], you might not see any difference. It's up to them to tell us everything they learned, but it doesn't usually work out that way. After all, they just learned it themselves. How can they be expected to already be able to teach us about it? (Teacher 6)

Additionally, teachers discussed how important it was to their learning process to attend with a colleague from their team. One teacher shared the importance of attending PD with trusted others:

> I learn so much from talking with my team during the PD session and even more after the session when we have time to process together. Usually during PD, we have time to turn and talk with other people, and it's always better when that person is someone from my own grade level team. And then after we are able to bounce ideas off each other and we kind of support each other with any changes we are doing. (Teacher 1)

One teacher, though mentioning that she liked to attend with her team, also recognized a positive from attending PD without the comfort of teachers she worked with more regularly. She noted attending PD with people with whom she did not work could be invigorating:

> It's always nice to hear fresh ideas from other people, because sometimes everyone at school is thinking the same way. There could be so many other great ideas out there we just didn't hear about. It's nice to hear from someone else, hear how they do things differently. I don't always get that if I always stick with my same group all of the time. (Teacher 6)

Overall, teachers' reflections about collective participation were positive and they believed that this type of PD better met their needs. It also illustrates one means for providing the previously discussed desire to have continued learning and support following the PD experiences.

Of the five principals interviewed, three echoed the teachers' opinions and indicated they believed teachers' PD needs were best met when they were provided the opportunity to learn alongside their fellow staff members. Though sending a whole staff or team was not always a reasonable scenario, principals recognized that teachers felt most satisfied when they attended PD with some colleagues. They also noted some

upsides and downsides to this. For example, one principal noted how a group experience might mean that it does not allow for the differentiation individuals need:

> While it depends on the type of professional development it is, I usually always try to send a whole team together to any training that is outside of our school. Of course, I need to balance this with the individual needs of teachers. Not everyone on the team will always need the same thing. (Principal 5)

Another principal discussed her observations of how the collective experience allowed for the follow up discussed earlier:

> When I send a team to a professional learning session together, I notice that they are more likely to talk about it when they get back. They refer to it in the team planning meetings. I don't hear this as much when I only send one person. The learning, even though not the intention, is more likely to stop with that one person. (Principal 2)

Therefore, though the principals recognized that sending a team together was not always feasible and could potentially either contribute to or detract from providing a differentiated approach to PD, they saw it as a valued approach to use in the right context.

Relevant and Actionable Content

In the interviews, three principals and nine teachers highlighted an important aspect of quality PD. They agreed that PD experiences that focus on content that was immediately actionable and met teachers' needs was important. As previously discussed, what PD might check those boxes was not the same for all teachers, it depended upon their situations. Teachers shared examples of PD they believed met their needs because the content was relative and actionable (see Figure 4); some of these topics were related to core content, whereas others were not.

Figure 4

Examples of Quality Content Professional Development Titles/Topics Identified by Teachers and Principals

Core Content Examples	Not Core Content Examples
Advantage Math Recovery	Blended Learning
Cognitively Guided Instruction	Cognitive Coaching
Interactive Read-Alouds	Equity Training
Literacy Collaborative	Growth Mindset
Math Labsites	Jacob's Ladder (Differentiation)
Math Workshop	Portrait of a Graduate
Numeracy Collaborative	Responsive Classroom
Teachers College Reading Training	School Talk
	Trauma Informed Practices

Teachers described how over the years they had received a lot of PD, but it sometimes did not feel applicable to their own classrooms because it did not honor the realities they faced. As one teacher put it, "Sometimes facilitators seem so out of touch of what is going on in the classroom" (Teacher 1). They agreed that quality PD needed to be reasonable in terms of expectations for it to feel actionable. A teacher explained her frustrations when she attended PD that felt out of reach based on what she was doing in her classroom:

> I've gone to PD in the past that felt like what they were asking us to consider was the exact opposite from what was happening in my classroom. I walked out feeling bad about myself and then never put any of it in action because it felt impossible. The PD that my current principal has us attend is something that is realistic. It's something I can put into action the very next day. (Teacher 5)

Additionally, teachers shared that relevant content was often timely. It connected to the work that was going on in the classroom or school. One teacher shared how important it was to attend PD that provided learning that could be immediately applied:

> I always feel better when I go to PD and it fits with what we are doing with our students and in our school. I feel like then it is something that I can connect to. When it fits with our current work, then I know I change something about the way I teach right then. It's not like some PD that I go to and think that maybe I'll try it next year. (Teacher 3)

Consequently, teachers felt the PD met their needs when the content they were learning about was relevant to their work. Relevant content is timely and connected to the classroom and school goals as well as something that results in actions that are reasonably achieved.

Principals agreed that the PD that best met the needs of their teachers contained relevant and actionable content. They explained the importance of PD matching the current state of the curriculum and pacing if the goal were for teachers to put that learning into action. They shared that PD that was not relevant was often something that teachers intended to use the following school year, yet often too much time would pass between the learning experience and the implementation for it to be successful. One principal shared the importance of teachers applying their new learning immediately:

> I think of PD kind of like learning a language. If you don't use it, you will lose it. If teachers walk out of a PD and they don't start to use their new learning, the ideas will be lost. Sometimes the PD that teachers go to is something for next year since they have already passed by that chance to do it this year. That's when the learning rarely "sticks." (Principal 2)

Overall, principals acknowledged that in order for PD to meet the needs of teachers, the timing of PD mattered. The learning that occurred in a PD session was best when it was something a teacher was able to attempt soon after. When the content was not relative or actionable, changes to practices were less likely to take place.

Engaging Learning Experiences

Those interviewed agreed that the specific activities planned within any PD experience influenced whether the PD was perceived as meeting teachers' needs. Six of

the 11 teachers interviewed specifically mentioned activities or processes within the PD session that contributed to this success. The examples discussed in the interviews illustrate PD designs that connect the content to the work of teachers, through higher order thinking processes that ask them to analyze and synthesize the learning (see Figure 5).

Figure 5

Types of Engaging Learning Experiences Identified by Teachers and Principals

Engaging PD activities
Complete activities
Discussion
Read article
Review student work
Time to process
View videos of students

Teachers shared that the PD sessions that best met their needs were sessions in which they were actively engaged and by contrast those that required them to sit quietly and listen to a presenter speak about slides were not as impactful. In fact, it led some to say the PD did not meet their needs. One teacher remarked about her preference toward PD that provided her with active learning processes:

> I can't get much out of a "sit and get" training. I need time embedded in the training to process the information, time to think about and talk to others. It's the only way I can make sense of what I'm learning. (Teacher 4)

Other teachers mentioned that PD facilitators who provided them time to read an article seemed to understand that participants needed to understand the purpose of the new learning and the research behind it. "I need to understand the 'why' of something in order to implement it, and articles help me do that in PD" (Teacher 1). Additionally, teachers

explained that time to see students in action through videos or looking at student work during PD helped bring meaning to the new learning and made it relevant in the classroom.

> I always feel like a presenter who shows me students in action or actual student work really remembers what it was like to teach. I leave those sessions excited to see what my own students will do if given the same opportunities. (Teacher 5)

Teachers also shared that PD activities were more likely to meet their needs if they were able to complete activities that they would later provide to students. Examples of this included playing math games, solving math problems, conducting a science experiment, or practicing a read aloud. One teacher shared how activities that allowed her to experience what her students would do were meaningful:

> I love when I can experience the new learning through the eyes of my students. So, when I get to solve problems or play a math game, I think about how I feel and how much students might feel. Those kinds of trainings always leave me feeling ready to put my learning into action since I already practiced it myself. (Teacher 2)

Overall, teachers were most likely to report that PD met their needs when the sessions included engaging learning experiences. Though what constituted engaging for teachers varied, all six teachers made mention of how it contrasted with the too common experience of a session in which slides were being read to them or they were being lectured to.

Principals also agreed that the activities within a PD session affected teachers' satisfaction with the session and whether they would recommend, or not recommend, PD sessions to other teachers. Principals also indicated that when they attended PD alongside teachers, they could see how a session that included engaging opportunities to interact helped to support everyone's learning. One principal explained that her teachers were excited to apply their learning following interactive PD sessions:

> When my teachers attend a PD that has them interacting with one another, talking, doing things, being active, they are usually enthusiastic about the session and the learning. Powerful learning rarely will happen from a boring PD session. Teachers leave exciting training jazzed about what they can do in their classrooms. (Principal 3)

Overall, principals and teachers both believed the format of a PD session influenced the effectiveness of the PD in meeting the needs of teachers.

Summary of Findings for Research Question 1

PD opportunities can be plentiful. However, if they are not meeting the needs of teachers, neither learning nor a possible resultant change in instruction is likely to occur. Teachers and principals identified how it was both the characteristics of and the topic of the PD that made the greatest impressions and thus were the most impactful.

Teachers and principals recognized that the best PD experiences are those that are followed by support. Because learning is a process that occurs over time, coaching and feedback following implementation continues the learning process. Study participants also described how quality PD experiences are differentiated for the needs of those in attendance, with specific considerations around grade level and teacher experience. This is related to their also finding valuable PD sessions allowing for the participation of a team rather than a teacher attending in isolation. Additionally, PD that best meets teachers' needs is based on relevant content that they believe is immediately actionable. Finally, the interactivity of activities and experiences within a training session positively affect a teacher's perception that the PD meets their needs.

Research Question 2: How do RCPS teachers perceive that professional development influences their instructional and assessment practices?

I designed Research Question 2 to examine teachers' perceptions of the ways in which their instructional and assessment practices had been influenced by PD. Table 7

provides an overview of the changes in practice principals and teachers identified. Further details of these findings follow and are listed by category.

Table 7

Changes in Knowledge and Skills Due to Professional Development

	Principals (n = 5)	Teachers (n = 11)
Knowledge of students	5	9
Content knowledge	5	8
Efficacy and preparedness	4	8
Impactful resources	3	8

Knowledge of Students

The teachers and principals interviewed for this study agreed that quality PD experiences helped teachers better understand their students. Nine teachers and all five principals discussed how PD provided teachers with insight into the academic and emotional state of their students and offered them strategies to better connect to students.

Teachers discussed that PD contributed to their ability to identify their students' current academic strengths and areas of need. They shared that PD enabled them to better understand student work by helping them to identify misconceptions. Teachers shared that this provided insight into students' strengths and areas for growth that, in turn, had the greatest impact on their instructional decision making. "I am now able to make adjustments to my teaching based on what students are doing and saying" (Teacher 3). Another teacher explained how PD helped her to understand mathematics strategies and a fundamental shift in how to support student growth:

> In the past I would look at students' math work and mark it right or wrong. I only looked at their final answer. The PD that we have done in math at my school has helped me grow so much as a teacher. Now I know that the answer is just one

> part, and usually not even the most important part. I examine the strategies to know what to do next with that student. My old way was for a grade, my new knowledge helps me decide what to teach next since I know what my students know and don't know yet. (Teacher 4)

Teachers also talked about how they knew more about what their students were thinking and feeling in their classroom after attending PD on increasing student discourse and on culturally responsive teaching. One teacher shared how this knowledge of her students changed her teaching practices by saying:

> I think my classroom was too quiet before. I was doing a lot of talking and students would answer questions. But after our school learning focus on discourse, I realize I don't need to talk so much. Getting [the students] to talk and listening to them has given me a lot of insight into how they are doing with the subject and how they are doing emotionally, too. Now I know when to slow down or speed up, or even pause and take a break from all the work because I am listening to their needs. (Teacher 7)

Overall, teachers now believed that in order to adjust for students' needs, teachers must first know their students well. They recognized that prior to the PD they received, they did not have the information about students they needed to make appropriate adjustments. Knowing students both academically and emotionally supported the teachers in making connections and building relationships they believed made for a better educational experience for children.

Principals agreed that they observed a change in the classroom as teachers' understanding of their students improved. They credited quality PD opportunities as having led to the changes. Principals shared that one of the greatest changes they had seen was in the relationships teachers built with their students as a result of PD around equity. Principals indicated this learning helped shed light on what we can all do to better create a sense of belonging in our classrooms from the materials and language we use to

the access and opportunities we provide to students. A principal explaining how equity-focused PD transformed several teachers' teaching and assessment practices:

> Our student population is so diverse. It's one of the best things about our school. Yet, we were missing out on ways to celebrate that. We have dedicated a lot of time to exploring our systems based on our learning about equity and culturally responsive teaching. We use different language now. We focus on asset-based language. We have examined who is in our advanced classes and what assessments we use to make those decisions. We have looked at the books in the classrooms. Our teachers have made so many changes in the classroom, and I can tell that it's because they have gotten to know their students and appreciate all they bring to our school each day. I can also tell our students can feel a difference based on behaviors and engagement in the classroom. (Principal 4)

Overall, principals acknowledged that knowing students better is an important step, leading to a greater appreciation for who they are and what they bring to the classroom community. They saw this appreciation as supporting changed instructional practices and school-wide systems.

Content Knowledge

Eight teachers and five principals agreed that quality PD resulted in an increase in content knowledge. They discussed specific PD experiences and their resulting impact on teacher knowledge, instructional strategies, and assessment practices.

Teachers reported that following professional learning sessions, they understood more deeply topics such as mathematics, reading development, and science. They admitted that while they learned topics as students, they did not necessarily understand them in a conceptual way. Their increase in content knowledge supported a shift from a teacher-centered approach, one where they simply showed students how to do things, to a student-centered approach, where they allowed students to explore and develop their understanding. Several teachers remarked that when they felt more confident in their own understanding, they were more comfortable with allowing students to talk about their

thinking in the classroom. For example, Teacher 9 remarked “I loved hearing student thinking in class”. She went on to explain that previously she avoided such discussion because she was not sure if the strategies students were sharing would work or not. The teachers who highlighted this convey excitement about how much more confident they were in their assessment of students and described how they were more easily able to address students who were struggling because they understood the content more deeply themselves. One teacher how a mathematics PD opportunity built her content knowledge:

> Before I went to this math PD, I had no idea how any computation worked with fractions. I just memorized a bunch of tricks, and honestly forgot even most of those. After the PD, I understood how to solve problems and why it worked. It made me a better teacher because I could help my students understand these concepts way better than I did when I was a student. (Teacher 3)

Another teacher explained how PD focused on science content helped her improved her instructional practices:

> I honestly didn’t understand much about science and never enjoyed teaching it. I would basically read straight from the pages in the curriculum. When students would ask me questions, I would tell them to look up the answers themselves. I pretended it was to help them learn, but really it was because I didn’t know the answer. We had science PD during our planning days, and we did the experiments and talked about the science. It made all the difference. I felt so much better as a teacher and really changed the way I teach moving to a student-centered approach. (Teacher 5)

Teachers also shared that PD on teaching reading helped them to better understand the development needs of students and how to work with students as they were reading. One teacher explained how PD focused on using one-on-one conferencing for reading instruction helped her to better assess her students:

> I never imagined teaching reading could be so enjoyable. Once my school received the reading PD, I felt like a lightbulb went off for me. I was able to assess where my students were by conferencing with them. I could learn so much about a student with that one-on-one time, and it wasn’t as overwhelming as I thought it would be. I knew exactly what to look for and how to ask better questions in a short period of time after that PD. (Teacher 9)

Overall, teachers shared that their increased content knowledge provided them the skills and methodologies to provide knowledgeable learning experiences and assess students. Content knowledge also afforded teachers an awareness of strategies to address student needs.

All five principals agreed that they witnessed PD build teacher content knowledge and reported how that in turn helped to improve instructional and assessment practices. Principals described how specific PD related to mathematics resulted in immense shifts throughout their schools. One principal explained that as they observed their teachers' content knowledge improving, they witnessed more thoughtful lesson plans, questioning, and grouping of students. A principal shared an example of how building conceptual understanding of mathematics impacted teachers' classroom pedagogy:

> Having strong content knowledge in math is much more than being able to solve problems. We knew we had teachers who could do that math, but many openly admitted that they were taught to memorize as students, and many had a lot of math anxiety. We worked for years to improve content knowledge, and we are thrilled with the changes we have seen. Teachers use rich math tasks, ask open-ended questions, and really encourage students to talk about their thinking. Math used to feel boring, but that's completely changed now. (Principal 3)

Another principal explained how PD on teaching reading and writing had influenced teacher content knowledge and shifted instructional practices at her school:

> We committed to sending our teachers to Teacher's College, and it has transformed our school. Our teachers use the workshop approach towards teaching and are able to better meet the various needs in their classrooms. They were able to provide enrichment and intervention when appropriate. Teachers were able to choose the right kinds of texts for students to help them and differentiate in ways that they weren't in the past. (Principal 2)

Overall, principals celebrated the changes in instructional and assessment practices as their teachers' content knowledge grew. They shared that they watched engagement in the classrooms improve as students were provided exciting and appropriate learning

experiences in the classroom. The classrooms offered a differentiated approach with teachers meeting students where they were while holding high expectations for all.

Efficacy and Preparedness

Teachers and principals indicated that because of quality PD, teachers were more prepared for the various needs in the classroom, better equipped to provide culturally responsive teaching, and more likely to have strong classroom management strategies. Teachers added that they felt more confident in their overall teaching abilities.

Eight teachers discussed how their confidence improved and how they felt more prepared to differentiate for the various instructional needs within the classroom. One teacher explained how PD positively affected her ability to differentiate for students who were in the process of learning the English language:

> I work in a school and have a classroom with a lot of students who don't speak English as their first language. I have to constantly think about how to teach them the grade level standards, but the language can be difficult. It was really overwhelming at first. My principal brought in great PD that helped us learn how to differentiate for my English learners. I had no idea what I was doing before and relied on the ESOL teacher to help those students. Now, I know I can make a difference for all students. (Teacher 3)

Other teachers shared how the PD they received that focused on equity and culturally responsive teaching shifted their thinking and their teaching practices. "The last few years because of the political climate and the racial injustices in our country, I think our school system really devoted more time to the work of equity" (Teacher 1). Teachers shared that though they did not realize they needed this PD in the past, once they had this training, it changed their mindset and their work with students significantly. A teacher explained how equity training helped her reflect on her biases, establish a sense of belonging in the classroom, and be more culturally responsive in her teaching:

> It isn't enough to love your students. I always loved my students. In the [equity] trainings that we have had the last few years, I've learned to consider my own biases. I have thought a lot about the relationships I have with my students and their families because of those biases. I reflect on the materials I'm using, and if they are a reflection of my students' lives, and even the language I use. Most importantly, I think about the classroom community and if I'm creating a true sense of belonging. I can't teach math, social studies, science, and language arts the right way unless I'm considering what I learned in our cultural proficiency modules. (Teacher 9)

Through professional development that focused on cultural proficiency, teachers recognized the importance for their teaching to go beyond exposure to the traditional subjects. This type of PD helped them to understand their biases and helped them to see their students and families differently. They acknowledged that a focus on equity and belonging helped to open up their students to greater success in the classroom.

Teachers also shared how PD focused on classroom management helped them be more prepared and more confident with setting up structures in their classrooms that were positive, resulting in fewer behavior concerns. One teacher shared how PD helped her establish routines and procedures to support classroom management:

> I know every teacher is always doing the best they can, and I know that classroom management is a common concern for new teachers. However, behavior concerns in the classroom seem to be something all teachers were talking about lately, even the veteran teachers. We received training on responsive classroom for our whole staff, and it seems to reset our whole school and our practices. It really changed how I handle things in the classroom, and I don't feel like I need to raise my voice and the kids really respond to the strategies I learned. (Teacher 11)

Overall, after having attended quality PD experiences, teachers shared that they felt more confident and prepared for their work in the classroom. It affected the way they thought about their students and their interactions with them, and they were able to put processes in place to better serve the various needs of students in their classroom.

Four principals also discussed the impact of PD on their teachers' efficacy and preparedness. They shared that they saw evidence of greater differentiation for students

during team lesson planning and while visiting classrooms. They explained that in reflection meetings with teachers, frustration was replaced with confidence. Teachers had more knowledge and strategies for supporting students with disabilities and English learners in their classroom. “The conversations I hear in the collaborative team planning time about how to differentiate are so thoughtful and strategic” (Principal 3). Another principal shared about how they had seen changes to teacher practice following PD on classroom management. This principal explained how Responsive Classroom PD had supported a proactive and positive approach toward classroom management:

> Walking into classrooms after our [Responsive Classroom] reboot has been amazing. Everything feels so much more proactive rather than reactive. The vibe in the classrooms and hallways is calmer and teachers are able to focus on teaching the content rather than focusing on managing behaviors. (Principal 2)

Other principals discussed how they had seen content PD build teacher confidence and evidence of how that confidence in turn transformed classroom teaching practices. They shared that teachers who at one time felt scared to teach mathematics were excited about upcoming units. They witnessed anchor charts in classrooms that showed student-invented strategies rather than a traditional algorithm. They saw learning activities that were fun and engaging and supported thinking rather than solution seeking, and they observed teachers working with small groups of students rather than taking a stand and deliver approach that lacked differentiation. One principal explained how PD on the use of small groups using a workshop model helped teachers move from a traditional approach to providing students with individualized instruction:

> I used to see teachers in front of the classroom talking at the students. Now, I see the teachers with smaller groups and working with them on strategies that are differentiated. Teachers didn’t all do that before, and I think it was because they were afraid of the content. The PD we have done over the last few years built up their understanding of the math and also made them more confident. (Principal 3)

Overall, the principals saw changes in the style of teaching and in teacher content knowledge as a result of quality professional development. Additionally, PD had a positive impact on teacher confidence. They believed teachers feel better prepared to address student needs and more equipped to tackle the content.

Impactful Resources

In the interviews, teachers and principals shared that quality PD opportunities provided them with resources that made an impact on their instructional and assessment practices. Eight teachers mentioned that because of a PD session, they had the materials they needed to be successful with grade-level content. One teacher explained how leaving a PD with resources for supporting the English learners in her classroom helped her to be better prepared:

> I learned so much about how to teach since I came to this school. Walking away from some of my favorite PD sessions has given me the materials to better teach reading and math. I went to one PD where I left with tons of resources for how to teach my English learners better. I have the materials that match the standards I'm supposed to teach this year instead of what I have to dig around and find for myself online. (Teacher 7)

Additionally, the teachers explained that PD opportunities gave them ideas for activities and materials that were more engaging for students. They believed student engagement increased in their classrooms following the PD because of the resources provided. One teacher provided this example about how mathematics PD gave her ideas for how to engage students in exciting and meaningful learning experiences:

> I got so many great ideas for teaching math at the sessions we have attended. I never would have come up with the games to help make teaching math fun. My students love math now, and they are completely into learning through games. They can't wait for math class, and I never thought I'd be good at teaching math. I'm so glad I went to the training and got all of these great ideas for making learning fun. (Teacher 5)

Teachers also discussed that some of the best PD opportunities changed how they thought about the assessment of learning. One teacher shared how PD affected her assessment of student learning:

> Honestly, I used to give quizzes on Friday and a big test at the end of a unit. That was about it. I went to AVMR [math] training and learned how to better assess my students. Doing one-on-one interviews [process and materials provided in the training] with students in math was eye opening for me. I learned so much from that session, and it has completely changed how I think about assessing my students. And the best part is that I know way more about them now than I did on the unit tests. (Teacher 3)

Overall, teachers explained that PD opportunities provided them the opportunity to gain and learn about new materials that ultimately affected their ability to provide suitable grade-level material, engaging learning activities for students, and appropriate and actional assessment of student understanding.

Principals also believed the resources to which teachers were exposed in PD sessions helped to influence the instructional experiences students were receiving. Three principals mentioned the shifts they observed in classrooms following quality PD. "Teachers love when they come back from PD with something in their hands that they can use with kids the next day" (Principal 3). Principals discussed how, after professional learning sessions, they noticed teachers using vetted, quality, learning activities that were approved by the school district and were grade level appropriate. One principal shared how PD ensured that resources provided to teachers were connected to standards and district expectations:

> I think some teachers have been used to using things like Teachers Pay Teachers or Pinterest to find activities for their students. However, we expect all of the work students are doing to be tied to standards and are district approved. When they leave professional development, I think they finally realize how good some of those materials can be and they know where to find them. (Principal 2)

Another principal shared that her staff had been working the overarching goal of improving classroom discussions across the content areas and that after PD, teachers left with examples of sentence frames and sentence starters to support discourse. He explained how those then helped his teachers to create their own materials.

Overall, the principals indicated quality PD provided teachers with activities that adhered to grade-level curriculum as well as materials that served as samples for them as they grew in their craft and were able to create their own. They expressed being satisfied with the instructional resources that teachers were using as they returned from PD, and feeling teachers had a better sense of what to look for in quality activities moving forward.

Summary of Findings for Research Question 2

Teachers and principals recognized that the ultimate purpose of PD is to influence the learning experiences of students. When PD is a positive experience and meets the needs of teachers, shifts to instructional and assessment practices occur, but that this is not always the case.

Teachers and principals identified that the PD provided to them at their school could influence their knowledge and understanding of their students. They believed the training they provided helped shed light into the social-emotional wellness of their students, helped them to improve students' sense of belonging, and helped them to understand where a student was academically. Additionally, quality PD led to an increase in content knowledge. Teachers felt they had a better understanding of not only what to teach but how to teach it and the developmental milestones of students as they progressed through reading and mathematics. Teachers and principals also identified that through

quality professional learning teacher efficacy was positively affected, and they felt more prepared as educators. This included aspects of culturally responsive teaching as well as strategies for student behavior. Finally, teachers and principals believed solid PD sessions provided teachers with the resources they needed to be successful with their grade-level content and had the greatest impact on student engagement and achievement.

Research Question 3: What practices do principals use to provide teachers with effective professional development in RCPS?

I designed Research Question 3 to examine the practices of principals in relationship to providing teachers with effective PD.

I believe it is important to examine the thinking and decision making of principals regarding PD as well as to compare this to how teachers perceive these actions and decisions. A summary of the important leader practices emerging from the interviews with principals and teachers are listed in order of prevalence in Table 8. Further details of these findings follow and are discussed by category and are presented first from the perspectives of the teachers and then the principals.

Table 8

Categories of Leader Practices Identified as Key for Effective Professional Development

	Principals (n = 5)	Teachers (n = 11)
Creating a culture of learning	5	10
Soliciting preferences and allowing choice	5	9
Focusing on job-embedded opportunities	5	9
Creating opportunities for on-going learning	5	7
Offering differentiated opportunities	5	7
Engaging the principal as learner	5	6

Making connections to school and district goals	4	6
Enabling participation of the team	3	7

Creating a Culture of Learning

A strong culture of learning was consistently mentioned as a leadership practice in both the principal and teacher interviews, and with great emphasis. In fact, this was a topic discussed in all five principal interviews and in 10 of the 11 teacher interviews. One component of establishing a culture of learning is the hiring process. Teachers were keenly aware that their principals looked to hire teachers who expressed an interest in continued PD. One teacher shared how her principal was thoughtful and strategic about her hiring practices and her communication around the culture of learning in the school. She explained this by sharing:

> Our principal hires teachers who are willing to go to professional development and willing to continue learning to be the best teacher they can be. I think one of the best things about our school is you know our community of teachers is filled with learners. We know our principal really brings this up even in interviews and constantly through the year. So, we all support each other with learning. It just becomes what we do and who we are. (Teacher 3)

Principals also shared the importance of being transparent about the expectation of learning during hiring. Principals discussed the vision and priorities of the school during the hiring process, adding that they explained in detail the types of learning that took place at their school with potential hires. They agreed that hiring the type of person who wants to learn and craves PD and feedback is an important step toward establishing and maintaining a culture of learning. One principal explained that sharing her expectations and priorities during the interview process was important. She explained this as follows:

> When I interview people, I say, “These are our top priorities. What do you think that you can bring to the table if you are here with us?” And so, they know from

> day one what I'm expecting, and they decide if this is somewhere they want to be or not. I also require, and this is where I get tight, that within the first 3 years of a teacher being here, they will be trained in certain things. I let them know that I will help them. I will get a sub for them, but it's a requirement. And so that's just the culture that we have, and I think that people come on knowing that's what we do and are okay with that. And then people who think "This is not where I want to be," that's fine. They don't have to be here right now, and I've helped people to find different places because this wasn't the place for them anymore. (Principal 4)

These principals explained that establishing a culture of learning is also about communication, and framing it as growth and getting better, rather than because of a deficit. Teachers remarked that they never wanted to work in a school where they never felt they could "get it right" and "needed to be fixed." They explained that they had friends who were teachers who viewed PD that way. One teacher shared how a positive approach to PD was important by saying:

> I think some teachers take a principal's suggestion for training as, "okay what am I doing wrong?" But I think here the atmosphere is that the PD is not about what you as a teacher are doing wrong. It's what we all want to do to help our kids. So, I feel like there's a positive environment here, and I feel like there's trust from our administration that they know that we are good teachers and that we just maybe need some more tools in our toolbox to meet the needs of student. Our administration is dedicated to learning and to researching and figuring out that what's best for students. I appreciate that. (Teacher 7)

Creating a culture of learning is also connected to principals establishing high expectations for all. The principals interviewed routinely used the terms "loose" and "tight" to describe the differences in their expectations. They explained they were "tight" around learning as a school and that learning is a professional obligation. A principal shared her belief about continuous learning being important by saying:

> As a school leader the climate or culture here is that we will all continue on a learning journey. We all have something else to learn and something we can do to get better. My expectation is that we all take part in learning every year. I'm ok if my staff is going to find something on their own to learn about, but they need to tell me about that plan. Professional learning is valued, it is expected, it is something that you do as a teacher at this school and is always something that should be meaningful. (Principal 5)

Teachers also shared that such levels of high expectations were valued, and for some even a reason to stay at the job location. In fact, two teachers mentioned they were comfortable with a long commute because they appreciated the culture of their school. Another teacher shared her appreciation for the continuous learning she was provided and recognized the impact it had on her as a professional:

> We can't stay stagnant in education. We have to keep moving forward and that is something that my administration really believes in. A culture of continuous learning is incredibly important, and it is what has kept me here at this school. I just love having administration that's appreciative of the continued learning. It's been so beneficial and made me a better teacher. (Teacher 11)

Additionally, establishing a culture of learning is connected to the relationships created with staff. The principals interviewed recognized the value of relationships and worked to establish and maintain relationships with their staff members. One principal believed in a strong connection among relationships, trust, and PD and explained this as follows:

> I think that relationships are the most important. Developing the relationships with the staff and being present to support them through whatever their need is; letting them know, "It's okay if you don't know something," and "I'll find ways to help you learn." I know relationships aren't what we are talking about, but I do feel like community and trust is connected to professional development. (Principal 5)

Teachers also shared that the lengths to which a principal will go to ensure teachers receive PD sends a strong message of whether the school has a culture of learning or simply engages in learning as a matter of compliance. A principal who is willing to pay for a substitute, brings PD to the school, and makes the time to attend PD stood out for these teachers as one who communicates a strong value of continued learning. One teacher expressed this connection between the values surrounding PD and the actions taken to secure the PD by saying:

> Going to PD doesn't feel like something we have to do just to check a box. In our school, we have a sense that our administration believes in us and believes in our potential. An administrator who is willing to go to the PD with you or let you miss that time for instruction with your students is someone who is making sure that there is time available to learn. That is someone who sends a strong message to staff that learning is important and creates a school of learners. (Teacher 5)

During the teacher and principal interviews, a culture of learning was discussed in great detail and participants connected it to many other aspects of the quality learning experiences the teachers received. The alignment in themes among these two groups is evidence of this culture being prevalent in these buildings.

Soliciting Preferences and Allowing Choice

Freedom to choose, also referenced in the interviews as autonomy, preferences and self-selection, was mentioned by five principals and nine teachers. This was discussed in both groups as having choices in the PD that was attended. Teachers' reflections identified the best PD was that over which they had some control or choice to attend. One teacher shared how this autonomy enhanced her PD experience:

> I've been thinking about the best training I have had and that it was when I had choice. I could choose to learn something that I enjoyed, something that was already my strength, or I could choose something that I knew was a weakness and that I wanted to get better at. I appreciate the autonomy to decide what was best for me, without somebody dictating and saying, "this is what you're learning this year." (Teacher 3)

Although full autonomy was important and mentioned by most teachers, it was evident in several teacher interviews that they understood that though choice may not always be possible, they still appreciated being provided some control over their PD trajectory. A teacher described how even when the overall topic of the PD had been identified for her, she appreciated being given choice in sessions:

> There are times we get to decide if we go to a certain session. And sometimes the goal has been identified for us. So, if are going to focus on a strategy or a goal as a school, then our principal gives us way to learn about it, but we can usually

> choose which session we attend. And I think that even when we are kind of encouraged to attend specific ones, they align with our school goals. (Teacher 2)

Therefore, teachers felt PD was most likely to meet their needs if they were able to have input into the sessions they attended. They appreciated principals who recognized that teachers may feel differently about what they need each year.

Additionally, teachers discussed how important it was to feel that their principals trusted them to make the decisions around their PD choices. Trust was a common word used by teachers when discussing their principals and PD. A teacher explained how her principal showed trust in her staff to choose their own path of PD:

> My principal trusts our professional opinion. She believes that we know what we need and what we need to spend some time on learning. She listens to other leaders in our building, like our coaches who tell her what we need, and she just says, "okay go for it." (Teacher 11)

Principals also saw value in providing teachers with the level of autonomy possible about the PD they received. All five principals interviewed made mention of how choice played a role in the PD opportunities provided for teachers, and they were very thoughtful about allowing their teachers the opportunity to choose what they wanted to learn about. A principal explained why teacher autonomy is important as it relates to participation in PD:

> I know teachers don't have a lot of time. So, if we are giving them professional development, it really needs to be something that they've chosen, something that they're interested in, something that they're invested in. (Principal 5)

Some principals discussed how they supported teacher autonomy by using specific processes to collect teachers' PD preference. Sometimes this information was collected informally through discussion, whereas some principals used surveys to collect data on interest. A principal shared how surveys and individual reflection conversations helped to determine PD plans:

> I do a survey at the end of each year. I use questions like: "What do you want to learn more about? What worked well this year? What didn't work well?" Then I meet with every teacher at the end of the year as well, to reflect on the year, and discuss their hopes for next year. And so sometimes professional development ideas come from those conversations as well as the survey. (Principal 2)

However, not every principal believed the opportunity for self-selection of PD was easily accomplished or could always be an option. These principals used the terms "tight" versus "loose" to describe their process for providing autonomy while also providing teachers with the PD they believed would be most helpful. Principals shared that they may choose to be "tight" around the topic of PD but may be "loose" about when the teacher attended the training. One principal explained why personal choice could not always be the driver of PD sessions:

> Sometimes people don't know what they don't know. So, I think we can't always say, "Pick your PD." I think it can be a part of it, but sometimes people may pick PD based on the other people they know are going, the roster for the session, or they may pick it because it's a topic that is interesting to them, even if they don't really need it. So, there's some autonomy when it comes to it, but it can't always be possible to choose whatever you want. (Principal 1)

Conversely, one principal made mention of some PD opportunities that were not highly attended and even possibly avoided. She shared that this information provided her important insight into teachers' needs. PD sessions the teachers did not choose to attend often revealed topics this principal knew teachers may have needed but were hesitant to engage in. She recognized that she would need to be careful about the format and environment for this learning and said:

> I sometimes found people didn't choose things they weren't comfortable with which also told me something. It was something we needed to focus on learning together in a safe space. This sometimes might be around content for a certain team, but I also have seen this with some of our equity work. It can be uncomfortable, and it's very important. (Principal 3)

Therefore, though all five principals recognized that autonomy was important to consider, it was not possible in every case if the other leadership practices were also important, some of which are described below.

Focusing on Job-Embedded Opportunities

Nine teachers and five principals highlighted the impact of PD within the school day. They shared that the focused learning opportunities provided at their school was among the most beneficial experience. Additionally, this form of PD made some of the greatest shifts in teaching practices.

Some teachers mentioned that job-embedded PD offered them learning that was respectful of a work and life balance. They commented on being better able to devote their time to learning when it was during the day rather than after school. One teacher shared how much they appreciated PD taking place during the school day:

> I appreciate that my principal pretty much makes all our PD during the school day. She provided sub coverage, which was nice, because then I don't do PD outside of my contract hours. I think you know for many teachers; we often do a lot of work outside of contract hours so to add professional development to that can be overwhelming. I feel like you're tired from the day and I had more energy because I wasn't working all day and then staying late trying to learn something new. (Teacher 6)

Principals considered job-embedded PD a means to accomplish other valued aspects of professional learning such as providing a differentiated approach, allowing teams to learn together, and providing ongoing PD opportunities. All five principals believed strongly in the support of a coach as a means of professionally developing their teachers. Though only three principals had a coach officially assigned to their school, the other two principals used other positions in their building or traded positions in order to have a person dedicated to a coaching role. One principal described the important role of a coach in the learning of her staff by saying:

> Instructional coaches are the best job-embedded PD there is. So, we often use our math and reading specialists as coaches to offer PD. Teachers can get PD during the day or even before school in a quick session. Coaches work with them in the classroom. That means that I don't use my math and reading specialists as interventionists. They don't work with kids. They are like teacher leaders and my goal for them is to build capacity of the teachers and their practice, not to pull 14 small groups of students during the day. (Principal 3).

Principals recognized that a strain on a professional plan was the reality of teacher turnover. However, a job-embedded approach allows principals more flexibility with being able to address the needs within the building and the school day in a systematic way and on their own timeline. A principal shared how she initiated PD within the school day by using teacher planning time:

> We are able to keep on our trajectory for professional development because we use our team time for learning more than outside PD. Of course, we get new teachers every year but what is constant is that embedded professional development during collaborative team meetings and then targeted professional development on those PD days in our own school. Learning happens every day in that way, so I don't feel like we are always trying to get someone caught up by needing to enroll them in a class. (Principal 4)

Principals also shared that there was a lot of expertise on their staff. "Every teacher has something wonderful to share with others," one principal remarked. By using a job-embedded approach toward PD, they could tap into that expertise, provide leadership opportunities for their staff, and build the capacity of teachers from within rather than waiting for PD sessions to open up from the school district or from an outside vendor. A principal shared how her staff learned from and with one another, all taking on a leadership role in PD:

> I like empowering teachers and push them to help other people. It kind of builds your skills and your leadership capacity when you teach someone else how to do something. Everyone should have the opportunity to be the expert. And they can because everyone can do something really well. (Principal 2)

Additionally, principals believed in the importance of improving core instruction and saw that the work of the collaborative team was the means to do so. Time together to analyze assessments, review student work, discuss instructional practices, and plan together are all considered a form of PD, and these principals considered it the best form of all. One principal remarked about the impact of the collaborative team on the learning of staff:

> Getting that tier one level of instruction strong among all teachers is most important. Everybody knows that what happens in that collaborative learning team, the learning that takes place there, is critical. So, PD doesn't have to be a conference you go to or something you do in a specific class. It doesn't even need to be a staff learning, gathering, or monthly meetings. You can do the real learning with your team and your team has three hours a week to do that together. (Principal 1)

Collaborative teams and the work of coaches to provide job-embedded PD were important to both teachers and principals, even in schools without a designated coach to support this work. In these schools, PD was not always something teachers attended. The learning that took place in a school day with the team as they planned helped to develop the individual teachers.

Creating Opportunities for Ongoing Learning

Creating ongoing opportunities for learning rather than 1-day events was a topic discussed by all five principals and seven teachers. This subject in the interviews was closely connected with job-embedded learning as discussed in greater detail in the previous section. Teachers recognized that continued PD was important to the successful transfer of new learning. Many attributed that success to continuous opportunities to learn with the support of a coach whose job it was to follow up on a training session. One teacher explained the coach's impact on their learning:

> So, usually when we have a big PD, we follow it up by working very closely with our coaches. We have check-ins and things like that, and they come and see us and give us feedback. They might already know what it is supposed to look like,

> and they give us time to keep learning about it. No one expects us to just be able to do it right away. Sometimes you can, but sometimes we need to see a coach model it for us again and again before it clicks. So, we get to work on it for months. (Teacher 2)

Additionally, teachers felt PD that occurred over multiple sessions was more reasonable to undertake and make changes. They preferred to consider small chunks of new information, implement these in practice, reflect, and refine. A teacher provided an example of why she believed PD was best when completed over time and with support:

> When we do something in a professional development, it can't be a big change all at once. It's better when there are multiple sessions over time so it's not just like a one and done type of thing. I know for math specifically; I might learn something and then think it's really cool and plan to try it. But then things get busy, and I don't go back to it. It's helpful when we hear that again in another session and also definitely helpful to know we have a continuing support system. When I have questions, I don't have to email somebody or track down my instructor. Instead, I can go to my math coach, who is here in the building and then it's followed up with coaching or co-teaching or just a conversation. (Teacher 4)

Principals also preferred to consider PD as an ongoing process rather than an isolated event. Principals shared examples of unsuccessful PD sessions to which they were exposed, and they shared that almost all of those experiences were traditional and over after one learning session with no follow up. One principal remarked about her long-term approach to PD:

> When I think about PD, I don't ever just think about PD as a one and done, like they take a class on a Thursday night. It can't work like that. I need to think about that PD and a through-line for the whole year. This is something we commit to learning about the whole year, not just in a one-time session.

Principals recognized that in order for learning to transfer into action, teachers needed time to process and consider their new learning in a risk-free environment. One principal expressed that it was unrealistic to expect otherwise:

> We don't do one-time PDs. I can't expect them to go to something, learn a bit about it and then turn around and implement it perfectly the next day. It takes time. They may need to process it or try things out. It might take some mistakes

> first, and then we learn and move on from there. If teachers are going to PD, then I need to back that PD up with other chances to learn about that. I need to make sure that PD is happening throughout the year. (Principal 5)

Another principal expressed he thought ongoing opportunities supported risk-taking. "Teachers can't be afraid of getting it wrong," said one principal. Rather, principals were hopeful that they created an overall learning environment that was conducive to taking risks and admitting what was unknown.

Principals and teachers believed learning is a process and not an isolated event. Therefore, PD needs to be ongoing throughout the year if we are to expect results. This may occur through follow-up coaching sessions or by attending multiple PD opportunities over the course of a year.

Offering Differentiated Opportunities

Seven teachers and five principals interviewed for this study agreed that PD is more effective when differentiated by teacher readiness, interest, and role. Therefore, offering opportunities for a differentiated approach to staff learning was a theme in both sets of interviews. One teacher noted, "I'm expected to differentiate instruction for my students, so it makes sense to differentiate the learning for us, too." Overall, teachers agreed that it would be most appropriate to differentiate the PD based on the person. One teacher explained how her principal was thoughtful about choosing the PD that was necessary to their success:

> The best PD is differentiated for us. I don't want to attend PD even if it's great if I'm not going to use it. I think our principal really picks and chooses the professional development that we're going to use versus ones that are just nice to have. She knows us and knows what we need to learn and what we might not be able to turn around and use. (Teacher 10)

Another teacher noted her appreciation to her principal for finding ways to differentiate PD for those who may not need it:

> I think my principal is really good about pinpointing what we need as a school but also understanding that individuals are in different places. For example, when a bunch of our staff was doing training on math workshop, she knew I was already doing math workshop in my class and didn't need that. So, I can get something different. I can go to something meaningful rather than doing something just because most everyone needed it. (Teacher 8)

Being able to differentiate for teacher needs means forming relationships with staff and knowing their strengths, interests, and areas for improvement. Teachers shared about how they believed their principals took the time to get to know every member of their staff. One teacher explained how her principal provided staff with learning experiences because she cared about them as professionals:

> I think my principal really listens to what people say and cares about what we want to learn about. I also think she really cares about building our capacity, so she really knows us. And she really wants to do what's best to help us be the best professionals. I do feel like sometimes my PD needs are different than teachers who are just starting at the school, and my principal really gets that. (Teacher 5)

Additionally, teachers noted that expectations for the implementation of new learning should take on a differentiated approach. Some explained situations in previous schools when they were expected to come back from a training and begin full implementation the very next day. They agreed that having reasonable expectations was something they appreciated about their principals. A teacher shared that she appreciated her principal allowing her to take her time with the implementation of new ideas:

> My principal honors people's time to process. She's ok with us just peppering in some of what we are learning, but she doesn't expect full implementation of certain things. She is good at giving us what we asked for and she doesn't always throw everything at us at once. She is ok with us focusing on one small thing we're going to change this year and then we'll focus on the next thing next year. She lets us get really good at that one thing before being expected to move on to the next. (Teacher 1)

Principals shared during the interview process that they were well aware of the need to differentiate PD to best meet the needs of their staff. Though they agreed this

could be a challenge to do while balancing the other aspects of professional learning they valued, they attempted to provide differentiated learning experiences that met teachers where they were and helped to take them to the next level. One principal noted the challenge of creating PD that would meet the needs of all teachers in the building:

> No one size fits all. So, I think as a leader sometimes building professional development plans can be a struggle. You have so many different needs and the lens is so different from person to person. I think that you really have to be mindful of what you're offering, the different kind of subgroups of your teachers, whether it be a specialist, primary verse upper grade teacher, or your special education team. You have to consider each of these groups and be mindful of who's at the table. It feels challenging when you have a full whole school mission of what you're doing that year and still be able to check all those boxes for individuals. (Principal 2)

Additionally, principals recognized that part of differentiating is being flexible and making adjustments when needed. All principals noted that due to the pandemic, this had become more important to consider than ever before, yet they also agreed that this was always necessary. One principal explained that a flexible approach based on teacher experience was necessary when it comes to PD:

> You have school goals and things that you know you want to work towards but recognize that every staff member is entering it with different knowledge and expertise. Also, consideration that every few years you lose staff and may need to start something over. You have to be mindful of that. Being flexible and realizing when people are not ready even though it was a part of the plan is important. You sometimes need to decide to come back to it in a year or put something on pause when you realize your staff isn't ready for it. (Principal 4)

Differentiating for the various needs in a school is not easy. Sometimes even the most differentiated plan for PD needs to be adjusted. However, principals and teachers both know that a differentiated approach is important for the meeting the specific learning needs of teachers.

Engaging the Principal as a Learner

Learning alongside the teachers was an important practice mentioned throughout the principal interviews. Five teachers agreed that having principal leaders who attended the sessions alongside the staff members sent a positive message. One teacher shared that she valued principals attending the PD sessions with them because it signaled care and intent to help:

> It's important to me and I think to a lot of people. My principal, she's leading by example. She's not just dictating and saying, "you should go do this." She's actually a part of it, and makes it feel meaningful. When she's there, she picks up on stuff that we might need to actually make it work for us. She's going to the training with us to help us. (Teacher 4)

Teachers also mentioned that attending PD where principals were present made the event feel like it was important for the whole staff, not just something that was about teacher compliance. Principal attendance sent a message of importance. When asked about the PD at her school, one teacher explained that when her principal attended PD, it did not feel like a matter of compliance:

> You know, sometimes there are just things we need to go to that feel like we are just checking a box. It's not like that here at this school, but it definitely felt that way at other schools where I taught. With my principals, it's not like "oh everyone just goes to the training." She's there doing, too. So, it feels like we're all in it together. She's all about learning alongside us. (Teacher 5)

Teachers also discussed that when principals attended PD with the staff, the staff believed they would be supported with the new learning. They knew this training session was not going to be a one-time event and then discarded. When principals attended, teachers felt more confident that the principals would have the knowledge to support them further. A teacher explained how she felt more supported and at ease when her principals attended a PD session with the staff:

> I feel like our administrators are learners themselves, so I think that makes it very different here. It also makes going to the session a little less stressful for us, because we are encouraged to take those opportunities and learn as much as you can. It feels like it's okay if we don't know something. You know, our administration is also great at letting us know when they don't know something and then you feel like they are going to sign up for something and support you after. They want to make that new thing we learned happen because they also want to learn about it, so I feel like they set a great example and they always follow up with it after. You know, it's not going to be something that gets forgotten if they go to it too. (Teacher 1)

Additionally, there was consensus among the teachers that in order for principals to be instructional leaders and provide feedback on the new practices expected as a result of the PD, it was important for the principals to be a part of the learning. The teachers expressed their desire to receive feedback and believed their principals were equipped to do so having attended the PD. A teacher explained how she appreciated her principal attending PD alongside the staff:

> I think it's huge that our principal always attends PD with us, because we know she knows what we are learning about. Your administrators have to be on the same page of what's best practice in the subject if they're going to be evaluating people and providing feedback on that. (Teacher 8)

All five principals agreed that being a part of the learning process with their staff was important. They recognized this as an important leadership decision and made an effort to attend PD with their staff as much as possible, including attending collaborative team meetings. Principals shared that attending PD sent the right message and supported the transfer of the learning into practice. One principal mentioned how attending PD with her staff helped provide her with credibility:

> To be able to influence staff, you have to be able to talk the talk, you have to know what they're doing, and you have to be able to be able to support them in that. I have to be a good role model and attend those training sessions, too. We have to be together in that learning. (Principal 5)

Principals also mentioned that they knew they could never be an expert in all content areas or in all topics. Therefore, attending PD with teachers and teams helped them to grow in their capacity for instructional leadership and provided them the knowledge and language to provide feedback to teachers as they applied this new learning. A principal explained how she relied on the expertise of her coaches to provide PD and she attended the PD as a learner:

> I wasn't a math teacher. I wasn't a reading coach. And there are professionals that have that content knowledge. So, I let them be the deliverer of the professional development, and I'm a participant with the teachers. I took [the] literacy collaborative [PD] with the teachers. I took the numeracy PD with the teachers because we're learning this together. So then when I go into a class to observe, or I go to provide feedback they knew I was sitting and learning side by side with them, I'm going to [be able] ask different kinds of questions. (Principal 4)

Principals also felt that by attending the PD themselves, they helped move the PD beyond that one session of training into an ongoing process. One principal shared that she had attended a lot of PD in the past that "never went anywhere" and that she "never used." She was adamant to not let that happen to her staff. Another principal said she found attending PD with her teachers to be an important aspect of her ability to properly support and evaluate her staff:

> I think an important piece of this for me is taking the training side by side with folks. Then, I know what I am looking for in evaluation and observations. I had to know it as well as my teachers so that I could continue to have conversations with them and reflect after their observations. Otherwise, the training is over the moment you walk out of the door of the session. (Principal 2)

Overall, in these schools, it was apparent that both the teachers and the principals valued the learning process when they attended PD together. It provided the greatest opportunities for continued learning and partnership in the transfer of strategies, as well as a feeling of connectedness among the group.

Making Connections to School and District Goals

Ensuring their PD decisions were explicitly connected to the school or district goals resonated throughout the principal and teacher interviews. Four principals and six teachers discussed this topic in the interviews. Teachers shared that they felt less overwhelmed by the amount of PD they needed to complete when it was connected to the school goals. One teacher remarked, "We usually have too much PD to accomplish in a year." However, she also shared that she viewed the training she had to do at the start of each year as different from the learning she did with her school by saying:

> My principal is thoughtful about not changing what we need to do all the time. She knows we have a lot of training to attend. And some of it is required and some of it is based on what the school decides to take on that year. But my principal connects it to a bigger umbrella. Like when we all decided we would improve our math instruction. That was the big school goal, and we all knew it. So, then any PD we did for a couple of years was all tied to that. It didn't feel like we were all over the place and trying to check a million boxes just to say we had PD that year. (Teacher 3)

Teachers also recognized that not all PD decisions were at the principal's discretion, as district and state initiatives play a role in PD requirements. When this happens, teachers appreciated the principal balancing the school-related PD with those requirements. When asked to expand upon these different types of PD, one teacher replied with how she appreciated her principal for connecting the learning in the school with the district and state requirements:

> My principal tries to be responsive to the teachers' needs while also balancing things or initiatives coming from the district and state. Every year I feel like we have some things we must do, and she tries to make those things not feel like they are extra or in addition to what we are doing at our school. She always seems to find a through-line with the work. (Teacher 6)

Principals agreed that they made decisions about PD based on school and district goals. Most importantly, they agreed that data should drive these goals. Student data are

analyzed to determine school goals, and these goals, in turn, influence the PD teachers will receive to successfully meet those goals. One principal also shared that it was not enough to ensure the PD was aligned to school and district goals. She believed an awareness of what other PD would be required based on those district-level goals and expectations was "important when considering how much we can expect of teachers in any given year" (Principal 3). Another principal shared how she used various data points to identify the goals and the PD needed to reach those goals:

> I like to look at student data. I like to look at informal data that I get from teachers as to what they feel they need. My assistant principal and I also do some grade level data analysis and look for where we see gaps. That's how we determine which way we're going to go in regard to professional development. That's how we determine what our goals are for the school. It has to connect, or we will never meet our goal. (Principal 1)

Yet, connecting to district goals is not always easy. Two principals shared how it could be frustrating when district expectations about goals or PD requirements were revealed after the school created a PD plan for the year. Principals expressed that they often had to spend time rearranging the professional learning plans when this happened. One principal shared, "If I had the district calendar and PD options earlier, it would make my job a lot easier" (Principal 2). Another shared that even when the PD options from the district were great opportunities for their teachers, they were often shared only after the school year was underway. "By that time, I already have a solid plan for teachers that I work to solidify over the summer and getting the district PD invitations during the year feels too late" (Principal 3).

Principals also mentioned the need to rely on a team to determine the school goals and PD decisions for the year. They agreed that involving a team rather than making decisions in isolation supported teachers with buy-in. "One person's interpretation of data

can always be skewed," said one principal. She explained how she relied heavily on a team of leaders in the school that included classroom teachers:

> We have a leadership team, and we all bring our different ideas for professional development. We have to look at the data and know the data. Our PD is based on the data because we know our data needs to drive decisions. Our teachers really buy into our decisions because they know they aren't being asked to go to PD because they are bad at something. It's not personal. It's based on the data and the needs of our school. It becomes what is important for them and for all of us. (Principal 2)

PD sessions that support a larger, overarching goal were decidedly more impactful for staff as indicated by the principals. Some PD opportunities only focused on one instructional strategy, so principals believed it was important that these sessions explicitly connected to the big picture. One principal provided an example of how she connected various mathematics PD to a larger goal:

> I know in some places and to some people, the PD may feel all over the place. But, if your big picture here is to have the best math practices for kids, under that umbrella can come PD on AVMR, math workshop, and other things. Then you differentiate the approach based on where teachers are with those trainings using both a job embedded approach with the teams and those district PD days so that you can optimize your amount of time. (Principal 4)

Connecting PD to the school goals is important to teachers in order for the PD to not feel overwhelming, whereas this connection is important to principals in order to ensure goals are met. Regardless, the balance with required PD due to district expectations and those determined within the school was also something the principals considered.

Enabling Participation of the Team

The importance of ensuring teachers attended PD with their grade-level teammates was mentioned by three principals and seven teachers. Many teachers reflected on the PD they received. One teacher identified the best PD was that which she

was able to attend with her whole team and compared that in contrast to experiences when one team member attended and was expected to bring the knowledge back to share with the team:

> It's always better when I'm with my team or at least one or two of my teammates. We can then talk about it after and help each other. I feel like sometimes it's intimidating to go in by yourself. But if you go with a co-worker or teammate, you take what you're learning, implement in the classroom, and then I have someone to discuss it with and talk about how it went and continue that learning after the PD. (Teacher 7)

Principals also felt that in an ideal situation, they would be able to ensure an entire grade level received the training together, and they shared that they made a concerted effort to provide teams with the opportunity to attend and learn together. One principal explained how she preferred to send a whole team of teachers together to attend PD to support alignment:

> When whole grade levels go to PD sessions together, I feel like they get so much more bang for their buck because they all have the same language. They had the same experience, and they have those conversations about how it went when they try it in the classroom. It's never easy for one person to attend then go back to their team who missed out on the training and try to teach it to them. It never ends up working out. (Principal 5)

However, principals shared that it was not always appropriate for the entire team to attend PD together. Principals shared that they also valued taking a differentiated approach to PD and recognized that "not all teachers will need the same thing" (Principal 1). The theme of differentiation was discussed earlier in this section. One principal explained why sending an entire team was not always appropriate. She stated she did not believe sending the whole team provided teachers a differentiated approach to learning:

> Even though I know that the team likes to attend together, it doesn't always make sense. I can't always send people together because the whole team doesn't always need the same thing. I think it's obvious when it's a new teacher to the school or new to teaching because they have to go to some novice teacher trainings. But it gets trickier when it's a teacher that really needs help with how to teach reading

> and their teammates already have had that PD. I need to just send that one teacher. (Principal 2)

Principals further explained that there were some factors that prevented them from sending an entire team even when they felt it would be most beneficial for the team to attend together. A principal mentioned a barrier that had been worse in the past 2 years due to the pandemic was the availability of substitutes. “I don’t have enough subs to cover a whole team anymore” (Principal 3). Additionally, financial factors, as well as registration limitations, played a part in the number of teachers they could send to outside training. A principal described how cost was a factor in determining how many people could attend PD:

> Sometimes I want to send everyone. I would want my whole staff to get the PD. I know it’s good, but the cost to send someone is too much for me to send the whole group. Money definitely gets in the way, and sometimes we are told we only get a certain number of slots for the PD. Sometimes I have to make a choice. I either send one person from each grade level or send only one team and then know that it would take me years to get the whole school trained. It’s not an easy decision, because I know the training is good and want everyone trained, but I can’t actually make it happen. (Principal 4)

Teachers and principals agreed that attending PD with a team was more impactful and more likely to produce results. However, the financial implications, the registration restrictions, and the need to differentiate for teachers may prevent this from happening on a regular basis.

Providing Access

Though not a topic that was found across most interviews with teachers and principals, I would be remiss not to discuss this component. The idea of providing easy access to PD was a strong focus that was discussed by one principal and was echoed by all three teachers connected to that principal. As this school was considered one of the

bright spots found in the school district, I felt it pertinent to discuss this result as it came from every interview from within the same school.

The principal shared that one rule of PD for her was to ensure that if she was going to expect a teacher to attend PD, she felt it was her duty to ensure easy access to that PD. This included using her coaching staff, using a job-embedded PD model, bringing experts into the school on staff development days rather than asking her teachers to drive to another location, and hosting after-school courses at her school. She shared her consideration for balancing family life as one reason for providing PD during the day by saying:

> My staff, they have families. They have small children. So, I try to see how we can maximize the school day and how I can maximize my funding to support teachers doing things within the school day. This can be challenging. I'll bring the PD to the school to help make attending the PD as doable as possible. They know I'll always try my best to do that. (Principal 5)

All teachers interviewed from this school recognized this effort and expressed appreciation. In fact, this act of making the PD accessible for them was noted as a strong reason for feeling satisfied with their PD experiences in their school and for staying at this school. One teacher expressed her recognition of the principal's attention to bringing the PD opportunities to the teachers by sharing:

> Our principal really does go out of her way to try and bring in what we're asking for. So instead of making us go somewhere else, she'll bring the class to our school and then we don't have to travel after school to take a class. She makes it so that people can do the professional development at our school, and they don't have to travel across the county in rush hour traffic after a long day at work. She thinks about things like that. She brings whatever she can to us and uses our space and our normal workday when she can. (Teacher 6)

The act of bringing the PD to the teachers rather than having the teachers go to the PD was highlighted as an important aspect of satisfaction by teachers and a strategic leadership move on the part of the principal.

Summary of Findings for Research Question 3

Overall, the schools with the greatest teacher satisfaction with PD also shared an alignment in principal and teacher beliefs about PD, specifically the practices or actions taken by principals to ensure teachers received quality PD. There is much to be learned by uncovering the thought process of these leaders, as this study only focused on those schools where there was a positive perception by teachers. The principals interviewed shared a common viewpoint that providing autonomy is important when possible. Additionally, they strategically attended PD alongside teachers, learning with them as partners. They did not choose PD based upon the newest fad. Rather, they ensured there was a connection with school and district goals. These principals allowed the whole school or whole team to participate in PD together, as they valued the support teachers were able to offer one another. Principals strategically and thoughtfully created opportunities for ongoing PD rather than one-time classes or sessions with a specific focus on using a job-embedded model for learning. They carefully considered the needs of individual teachers and offered a differentiated approach to PD. Additionally, and stressed the most, was that these leaders established a culture of learning in their schools that attracted teachers to the building and enticed them to stay.

The next chapter includes a discussion of the themes, recommendations, and detailed communication resources, and concludes this capstone.

CHAPTER FIVE: DISCUSSION

I designed this study to explore the principal's role in providing teachers with quality PD. After identifying schools that served as "bright spots" in the chosen school district, I examined the perceptions of teachers and the decision making of principals to uncover what led to the successful implementation of PD. In this qualitative study, I examined the practices of five principals who appeared at the top of the results of a district-wide survey conducted in a large school system. The results of this study provide an opportunity to learn from these exceptional leaders and reflect on the practices they are using as considerations for future work.

In this chapter, I discuss the themes revealed in the interview data using my conceptual framework and the literature related to PD and leadership practices. Recommendations for leadership in RCPS are made, and action communications are shared to support this work.

I begin by highlighting the primary themes that emerged and how these themes may or may not connect to the research discussed in Chapter 2 of this capstone.

Theme 1: Disposition of the Principal

Throughout the principal interviews conducted for this study, it was evident that these school leaders shared some common beliefs and values. I have summed these up in the sections below and loosely categorize these as the disposition of the principal. Though these principals may differ in many ways, the characteristics listed below were woven throughout their answers, their discussions about their staff, and their plans for

PD. It became apparent that these five principals hold these beliefs at the core of their being.

Knowledge of Current State and Desired State

The principals interviewed for this study consistently indicated a clear understanding of the current state of their school and the needs of their teachers. These principals understood their school data and how they got there. They openly discussed the strengths of their teachers as well as areas for growth among school staff members. These principals were not trying to hide anything. Though they may believe a weakness in a staff member is ultimately connected to them as a leader, they believed identifying these needs and addressing them was imperative.

Principals also had a clear vision for the desired state of their school. They based this desired state on research and best practice, and they did not believe themselves to be the holder of all knowledge. They consulted with experts in the various content fields, and they planned for ways to get the necessary information and professional learning to teachers. They believed in meeting teachers where they are and moving toward the desired state. One principal shared, "Professional development isn't instantaneous. It's a 1-year, 3-year, and 5-year plan" (Principal 3). The teacher interviews were in alignment with the principal interviews. Teachers shared that they believed their principals had a clear plan, articulated that plan, and helped support the whole school in being successful.

Principals are in a unique position to create the conditions in their schools that foster both teacher and student learning (Mullen & Hutinger, 2008) and are key players who provide leadership in the development of teachers through advocacy, support, and influencing others (Bredeson, 2000). The principals interviewed for this study had a clear

pulse on the school and the needs of their teachers. They can identify what is doable and what may be too much. They can sense when a PD plan may need to be paused or slowed down or when the staff is ready to move forward faster.

Though the literature examined for this study did not directly use the terminology of current state and desired state, successful leaders employ a core set of practices including developing people and improving the instructional programs (Bredeson, 2000; Hitt & Tucker, 2016; Leithwood & Louis, 2012). In order to do both of these things successfully, leaders need to have the ability to identify where their school is and what is needed to make it better.

Presume the Positive

All five principals interviewed spoke positively about the adults and students in their buildings. It was clear that they presumed the best of their teachers. One principal shared, "My teachers work so hard and do everything they can to be the best they can be for their students" (Principal 2). Principals believed in their teachers, and they believed in the teachers' ability to learn from PD. This growth mindset is congruent with the literature surrounding adult learning theory as discussed in Chapter 2. Speck and Knipe (2005) posited that adults will commit to learning when they believe it is realistic and important. These principals share in the commitment to provide teachers with the necessary PD to be successful and presume they will commit to this learning.

The teachers interviewed echoed this belief. They discussed how their principals always treated them as professionals and always assumed they were doing their best. Teachers saw PD as a step toward improvement rather than assigned as a result of something they were doing wrong. "My principal never makes me feel like I'm in trouble

when she talks about new PD we need to attend" (Teacher 1). Teachers believed their principals accepted them rather than judging them. Presuming that teachers were doing their best, wanted to learn, and could learn as a result of the PD made the learning opportunities more appealing to teachers.

Assume a Learner Stance

In the interviews with principals and teachers, it was shared that in all five schools, the principal learned alongside the teachers. Teachers saw this action as the principal's way of communicating the importance of the PD. Additionally, they felt more comfortable with learning something new when they realized their principal was equally as invested.

Principals agreed that attending communicated a high level of focus and importance, and they also felt attending the PD helped the principals to be more equipped to support staff. They shared that learning with teachers provided them with the language and the look-fors when they observed classrooms and provided feedback. They also felt attending PD sent the message that learning is continuous and we can never have enough learning opportunities.

The literature is in alignment with these data. Many researchers stress the significance of the leader learning alongside teachers (Bredeson, 2000; Hitt & Tucker, 2016; Mullen & Hutinger, 2008; Robinson et al., 2008). Hitt and Tucker (2016) believed this to be key as it "strengthens the leader's knowledge in curriculum, instruction, and assessment, strengthens teacher perceptions of the leaders' credibility, and equips leaders to be a source of knowledge" (p. 18). This co-learning stance of the principal develops a culture of learning within the school.

Theme 2: Guiding Principles of Professional Development

The principals interviewed for this study made some thoughtful and strategic decisions about PD in order to meet the needs of teachers and ultimately influence students. Throughout the interviews, they consistently discussed guiding principles that remained at the forefront of their minds as they were making PD decisions and considering the needs of the staff. These guiding principles are in alignment with adult learning theory. It was evident from the data collected that PD does not simply happen to teachers. PD takes intentionality, and this was evident in the interviews with the principals as they continued to use phrases such as "I was conscious of," "I needed to really work to consider," and "I was always mindful of." Several areas of decision-making rose to the top in the interviews and are discussed in the sections below.

Teacher Autonomy

Teacher choice, or autonomy, resonated as a key factor in a successful PD plan. Teachers explained that when they were able to determine their own learning path, they were more likely to get what they needed most. Though the principals recognized that providing choice was not always possible, throughout the interviews they discussed ways they could still honor teacher autonomy. Principals shared that they do this in a variety of ways, such as gathering teacher input, providing teachers with choice in sessions, or providing teachers a choice in how they receive the professional learning.

With autonomy being linked to intrinsic motivation (Brooks & Young, 2011), it is evident why providing teachers options for PD is important. One teacher shared, "I'm my worst critic. So, I know what I need to work on and choose my PD based on that" (Teacher 3). Providing autonomy and involving teachers in the PD process is an

important act of a principal (Bredeson, 2000; Brooks & Young, 2011; Youngs & Lane, 2014) and that is supported by both the teacher and principals interviewed in this study.

Connecting to School/District Goals

Hirsh (2004) and Wieczorek (2017) posited that an effective PD plan cannot be written separately from a district or school improvement plan. Instead, they function best when these goals are embedded, and the teachers and principals interviewed for this study concurred with this research. Teachers shared examples of why this connection was important. They indicated that without this coherence, they felt every year they needed to focus on something new and different. One teacher said, "In a previous school, it felt that we were going in a different direction every year, and it was overwhelming" (Teacher 7). Teachers interviewed shared that the principal focused the PD they were attending on the same goals in the school improvement plan and often remained focused on those goals for several years in a row.

Data collected from the principal interviews also aligned with the literature. Principals shared that they were purposeful in making connections among the district expectations whenever possible. Though not always easy to do when information was shared late, they would do everything they could to align the work to alleviate the load on the teachers. A common practice of these principals was to closely align the school improvement plan, that was created based on data, with the PD plan. These went hand in hand according to the principals interviewed.

Job-Embedded Approach

The principals interviewed for this study all agreed that PD was not a one-time event. They also unanimously agreed that PD was not necessarily something that staff

needed to leave the school in order to be a participant. Rather, these principals valued the learning that occurred during the school day and felt a job-embedded approach to learning could make the most impact. A principal stated, "There is no better PD than the time spent learning something and then trying it with our own students and with our own staff helping" (Principal 3).

The literature supports these data. Teachers benefit from a job-embedded model of PD because it provides frequent opportunities to apply and engage in learning that allows them to grapple with content and instructional processes; therefore, they are more likely to transform their teaching practices (Mullen & Hutinger, 2008; Wei et al., 2009). Job-embedded PD, or teacher learning that is grounded in the day-to-day teaching practices, has the greatest impact on teacher learning (Darling-Hammond & McLaughlin, 1995; Hirsh, 2009; Odden, 2011). Principals and teachers interviewed shared that this format of PD was also the reason for the successful transfer if they attended an outside PD session. The time teachers spent with their team reflecting, the time spent with coaches practicing, and the time spent adjusting their teaching practices within the school day were elements of the most impactful PD.

Team Participation

As a critical feature of PD, collective participation can be accomplished when teams of teachers from the same grade, department, or school attend together (Desimone, 2009; Wei et al., 2009). Though principals could not commit to this as a general rule, they all saw value in collective participation at some level. Principals highlighted that consensus about a topic and clarity of language were best achieved when the whole school received PD together. They shared that there was more vertical alignment when

this occurred and that there was greater consistency among teachers and teams when PD was approached in this manner.

Teachers also shared an appreciation for being able to attend PD with their teams or colleagues. They felt safe to discuss and process their new learning with known colleagues and believed they would have a support system when implementing the newly learned strategies when accompanied by a peer. However, principals believed a differentiated approach to learning was equally important. Therefore, if a whole team of teachers was not in need of the same PD, they would opt to only send those for whom it would be most appropriate.

Differentiated Approach

As expected, the teachers and principals interviewed for this study were in agreement that a differentiated approach to PD was necessary. This supports the literature. Researchers have put forward that high-quality models for teacher PD include differentiated options for teachers (Birman et al., 2000; Desimone & Garet, 2015).

Teachers shared that they felt most respected when their principal recognized when they may not be in need of a specific PD session. Grade level or years of experience are some factors the teachers shared that would be important to consider when determining PD expectations. Principals also agreed that consideration of those factors was necessary to provide teachers with what they needed most. Principals explained that PD for a first-year teacher may look very different from PD for a teacher who has been at the school for many years. Additionally, in order to be most successful, PD designed for grade-level teachers may need to look different from the professional learning experiences designed for specialists (e.g., art, music, physical education teachers). One

principal explained, “I can’t ask my teachers to differentiate for the needs of their students in the classroom and not do the same for them” (Principal 4). Taking a close look at teachers as individuals with different needs was important to all principals.

Determining the Focus of Professional Development

The focus of the PD experiences played a key role in its success, according to principals and teachers. Teachers shared instances where content-focused PD helped to improve their own pedagogical content knowledge and resulted in serious shifts in their teaching and assessment practices. Several teachers specifically named mathematics PD as leading to the some of the greatest learning. One teacher shared, “I didn’t grow up learning math this way, and I didn’t learn anything different in college. It wasn’t until I went to this PD that I realized that I didn’t really understand the math myself” (Teacher 9).

Principals agreed that some of the content-focused PD had a great influence on instruction. They also shared that so much time was dedicated to professional learning of mathematics and language arts, as those were two consistently required goals in their school improvement plans. Many examples were provided in the interviews about content-specific PD and how that learning helped to build teachers’ content knowledge and efficacy. Desimone and Garet (2015) identified the importance of focusing on content as a core feature of effective PD. A teacher’s pedagogical content knowledge is central to the teacher’s effectiveness and therefore a very important aspect to pay attention to when planning for PD (Dagen & Bean, 2014; Leithwood et al., 2004).

The research discussed above is in congruence with some of the data from the interviews. Conversely, teachers also shared PD experiences that were not content based

but instead focused on classroom management, equity, and culturally responsive teaching practices. They explained that PD with these foci played a significant role in making them better teachers and better equipped for the classroom. This impact is not in alignment with the literature.

Regardless of whether the PD is based in content or not, the focus of the PD is best when it is timely and actionable for teachers according to those interviewed. Principals and teachers shared that when PD was focused on something that was supposed to be used the following year, it rarely took shape in the classroom. Literature around adult learning theory supports this finding. Adults learn best when the PD is practical and related to their work or personal life (Knowles, 1980; Speck & Knipe, 2005). Principals agreed that ensuring teachers were receiving PD they could put into place immediately and related to the work they were currently doing had the best chance at transfer.

Concentration on Coaching

The principals interviewed for this study used a similar strategy for the successful PD of teachers in their school. As stated earlier, principals were conscious of the time devoted to learning. They believed learning takes place over time and is not best accomplished in a one-time event. These principals believed in job-embedded and ongoing PD, and the literature supports these data. The consistent strategy principals used to accomplish this was to use a coaching model in their schools.

Though only one of the five schools had a designated coach from the school district, all principals built capacity in their teachers by focusing on coaching as a means to PD. The literature is in congruence with this data. Teachers who receive coaching are

more likely to enact the desired teaching practices than are those who attend traditional models of PD and do not have coaching as a follow up. School-based coaching can ensure active learning that takes place during the school day and is ongoing (Wei et al., 2009).

By leveraging the adults who do not have their own student roster (e.g., reading teacher, technology specialist, math resource teacher), principals created a team of teacher leaders who spent the majority of their time working with adults rather than students. PD such as coaching and mentoring is more likely to have a longer duration, and meaningful learning opportunities require time for quality implementation (Darling-Hammond et al., 2017). Additionally, though the experience of working with a coach can in itself be a learning opportunity for teachers, coaches also provide ongoing support following a formal PD workshop. Guskey (2000) advised that PD sessions should be supplemented with follow-up activities to provide the "feedback and coaching necessary for the successful implementation of new ideas" (p. 23).

In addition to the principals valuing the role of the coach, the teachers agreed that they learned from having the support of a coach. One teacher said, "I don't know what we would do without our coach. She really helps to push our thinking and supports us with any new change in our school" (Teacher 4). Teachers shared that they rarely came back from a PD session and felt confident enough to immediately make a change. They explained that with the coach's support, they were more likely to take a risk and make changes to their instructional and assessment practices.

Theme 3: Creating a Culture of Learning Through Intentional Recruiting and Hiring Practices

Resonating as an important and thoughtful practice of principals was the intentional focus on PD opportunities and expectations during the recruiting and hiring of new staff. Though the literature discussed in Chapter 2 did not specifically address hiring practices, these data are congruent with establishing a culture of learning and I suggest these hiring practices are a component of that.

A successful principal will communicate the value of and set a clear purpose for PD while keeping the focus and goals on student learning (Bredeson, 2000). Principals and teachers shared that even as early as the interview process, principals made clear to applicants that the school placed a high value on continued learning. In some instances, the principal shared the required PD that would be expected to be completed within 1 to 3 years of being a member of the teaching staff. One teacher shared, "My principal discusses our stance on professional development during the interview. The message is loud and clear, and candidates either get excited about it and want to be hired or take a job somewhere else" (Teacher 6).

Principals shared that creating a culture of learning meant setting the stage for what they believed about teacher development as early as the interview process. One principal shared that she had heard from applicants that they wanted to work for the school because they heard about all the PD they would receive. "It's the right kind of fit for the right kind of person" (Principal 5). Creating a learning environment involves setting high expectations for learning and helping teachers to believe in themselves as professionals. Recruiting for and hiring for teachers in this manner helped ensure those

being added to these school communities held the same high regard for learning as the rest of the staff.

Connections and Significance

Findings from my research emphasize the importance of the principal in shaping the PD options and experiences for teachers. The themes identified bring out the nuances of the literature review in Chapter 2. Principals' beliefs and values about continued learning formed the basis for how they made decisions. They considered what PD teachers needed to ensure students received quality learning experiences. They then determined when and how PD would occur. Additionally, principals engaged in the learning themselves and relied on experts in the field to provide PD.

The leaders interviewed for this study held common beliefs that served as a basis for their decision making regarding effective PD and their role in the process. The leadership practices they employed were congruent with the literature and were grounded in their values and disposition toward their staff. All five principals held a great deal of respect for the adults in their building. The systems and practices these principals used came from a generative drive of their view of the staff and the care they had for them and drive to help them be their best selves. Furthermore, these principals did not only think about PD when it was needed, they were continuously thinking about ways to develop their staff and build a culture of learning that started as early as the hiring process.

My interviews with principals uncovered the values and strategic decision making that lead to the successful PD of staff, as well as barriers that can prevent this PD from occurring. The principals I interviewed were considerate of the teachers as individuals, were mindful of the qualities of PD and adult learning and were clear about the strengths

and areas for growth within the school. Additionally, principals were respectful of the time it takes to put new learning into practice and provided teachers with ongoing support through coaching. The state of the PD that exists in these five schools is replicable; with some system-wide and some school-based considerations, this same exemplar of a learning environment could be recreated in other buildings.

My interviews with teachers revealed gratitude for the thoughtful decision making of their principals. They recognized that quality PD is not a given and were thankful that their principals created a culture of learning at their school, treated them as competent professionals, and provided them time to process their new learning. They were also appreciative of the autonomy they had over their learning and the differentiated approach their principals used to meet their needs.

Even if packaged with all the components suggested within the literature to ensure its quality, quality PD is highly dependent on the principal. The principal holds the key, knowing where teachers are in their own learning and professional journey, as well as what the desired state is for the school staff as a whole. The principal uses the existing schedule and human and fiscal resources to make the PD plan come to fruition. It is the principal who brings the right PD to the right staff at the right time and supports the launch. Principals work to create a supportive environment where teachers are encouraged to grow and improve in their practice. Creating a learning environment involves setting high and clear expectations for learning and helping teachers to believe in themselves as professionals. This is all expressed or implied in my conceptual framework. What was not identified in the conceptual framework is the disposition of the principal and the impact of that on the decision-making process.

Recommendations

The recommendations presented here reflect ways in which school district and individual school leaders can provide meaningful and quality learning experiences for teachers. There is evidence of this occurring in places within the school district, and careful consideration can be made for ways to support this implementation to scale. Below I provide five recommendations for leadership to consider as a result of my findings and the literature surrounding PD. The first two recommendations are directed toward district-level leadership and the last three recommendations are directed toward school principals.

Recommendation 1: Provide Continued Professional Development to Principals

Woven throughout the interviews with teachers and principals were key aspects connected to the literature surrounding adult learning theory, quality PD characteristics, and leadership practices. The principals interviewed for this study appeared to have a strong understanding of each and used these as a foundation for their decision making. A belief I hold is that all principals want what is best for their teachers and students. Therefore, if provided opportunities to learn more about adult learning theory, PD characteristics, and leadership practices, other principals would also have this knowledge base and employ this information in their decision making. Therefore, through continuous PD in these three areas, all principals can experience success regarding the professional learning of their teachers.

In addition to the aforementioned PD topics listed, principal learning opportunities could include time spent with other school leaders to discuss their plans for PD. Learning from and with one another could help to strengthen the PD plans for all

school leaders and help to identify opportunities for efficiency and effectiveness. Maya Angelou's famous quote, "When you know better, you do better" highlights the impact the PD can have for our leaders. Focusing this PD for them as a means to improve the PD of their teachers can play an important role in improving the learning culture of the school and the instructional experiences for students.

Recommendation 2: Advance Determination of District Goals, Staff Calendar, and Professional Development Opportunities

In the interviews conducted, school leaders shared how they created their PD plans and connected PD to data, the school improvement plan, and district-level goals. Teachers concurred that those practices felt supportive of them and their workload. The literature supports that connection and also that congruence to district level goals will make for a quality PD experience (Desimone & Garet, 2015; Desimone & Stuckey, 2014). Therefore, it would be best for principals to be made aware of what district priorities and goals have been identified in advance of the school year in order to build out a PD plan that is meaningful for their staff.

When principals design a plan only to have it disrupted after the fact by a reveal of district-level expectations or offerings, it is difficult for connections to be made. Though school calendars for students are released in a timely manner in Rover County, principals shared that the staff calendar often remained uncertain until much too late. Additionally, dates principals reserved for PD can get reallocated by the district at the last minute for a required training and interrupt the plan.

In addition to district goals and designated training dates, principals shared that PD offerings created at the district level were often not shared until after the school year

has begun. If these offerings were made available earlier, principals could use these opportunities in their PD plan. Therefore, it is recommended that district goals, priorities, and centrally created PD opportunities be identified and shared before June 1 whenever possible to allow for optimum coherence.

Recommendation 3: Establish Learning as a Norm

Resonating throughout the interviews with teachers and principals was a culture of learning in the school. Continuous learning was not only considered an expectation but also a right and a responsibility. Principals interviewed for this study valued learning and believed a principal shows they care about students and their teachers by creating opportunities for teachers to learn and grow rather than staying stagnant and holding on to old practices. Showing care for teachers is not achieved by giving them time off from planning with their team. Nor is it excusing them from the PD experiences. Teachers echoed this and shared how they felt privileged to work in a school that focused on their growth as educators.

Principals should make every attempt to establish this culture of learning early and remain focused on this throughout the year. They can begin this process by honestly examining their current state of instruction and developing a clear plan for moving to the desired state. Principals do not need to be the person providing the PD themselves. Instead, they may attend the PD alongside their teachers, modeling the vulnerability as a learner. Principals could create a plan for learning that involves teacher input and is centered on data. Looking at PD as continuous rather than a one-time event is necessary to reach a culture of learning and planning for this is intentional. When learning is the

norm in the school, the routine of learning takes place in a variety of settings such as formal PD settings, in planning meetings with teams, and in individual coaching sessions.

Recommendation 4: Focusing on Key Aspects of Quality Professional Development, Regular Evaluation

Principals should be selective when choosing PD opportunities for staff, because not all PD is created equal. In the interviews with teachers, it was clear that they most appreciated PD when they were able to give input, when it was connected to school or district goals, when it was ongoing and job-embedded, when they were able to attend with other team members, and when it took on a differentiated approach. These characteristics are in alignment with the literature. Therefore, as principals seek to bring in PD experts or make choices regarding which learning opportunities are going to be best for teachers, they should keep these aspects in mind.

Additionally, it is important for principals to evaluate the overall PD plan and the sessions that are held. This evaluation is most effective when it goes deeper than simply determining whether teachers enjoyed the PD sessions. Evaluation to determine the implementation of the new learning and transfer to students is necessary if we are to have PD influence student learning.

Recommendation 5: Use the Adults as Coaches

It was evident in the interviews with both principals and teachers that ongoing PD is most successful. This is congruent with the literature. Each of the principals interviewed for this study discussed ways in which they used other adults in the building to serve as experts and coaches. In fact, only one of the schools had a district supported designated instructional coach, yet all principals interviewed for this study chose to use

resource teachers and specialists in their buildings to serve in the coaching role. By focusing these positions on building the capacity of the adults rather than on working with students, they were able to move the PD plan forward more successfully. This was clear in both the interviews with teachers and principals, as they all shared the importance of the role of coach and the impact on teacher learning, support, and growth. Therefore, as staffing decisions are made, principals may consider what positions can be used in in a coaching capacity to support the PD of teachers.

Action Communications

My findings reflect that the principals interviewed for my research had thoughtful and strategic ideas for how to ensure teachers in their school were provided with quality PD experiences that met their needs and ultimately influenced students. The appendices of my capstone convey the action communication to school leadership about my five recommendations listed above. The communications consist of a brief memo for dissemination to district leaders (see Appendix H), along with a PowerPoint presentation (see Appendix I) and one-page document for principals (see Appendix J) outlining my recommendations to principals that have resulted from my research.

Summary

In this chapter, I discussed three themes and five recommendations for RCPS based on the findings of this study. Themes and recommendations reflected the literature related to PD and leadership practices, the needs of teachers, and the intentional leadership decisions around providing quality PD to teachers. Recommendations were developed to positively influence principals' decision making surrounding the PD provided to teachers on a consistent and sustainable basis.

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APPENDIX A: INITIAL PHONE SCREENING WITH PRINCIPALS

Hello (insert principal name here). This is Jennifer Lempp. I am a graduate student in the Curry School of Education at the University of Virginia working on my capstone project for my Ed.D. in Educational Leadership.

In order to move forward in my process, I'm researching the principals' practices that lead to the effective professional development of their teachers. I've chosen to focus my efforts on the "bright spots" within the district, and you have been identified as someone I'd like to learn from. In looking at the Employee Survey results, it is apparent that your teachers are satisfied with the professional development they are receiving. I'd be very interested in digging further into this to find out what specific beliefs and actions you would attribute to that success.

My research has been approved by the research office at the University of Virginia and the school system, and it is being sponsored by Dr. Z, Assistant Superintendent. There is no compensation for participating and there are no known risks to you, your school, or your teachers if you choose to participate. The participation in this would involve a few steps:

1. I would ask for approximately 60 minutes of your time for a face-to-face interview.
2. I would ask that you submit a list of approximately 5 teachers that I could contact for an interview. From this list, I will choose 3. I will not share with you which 3 teachers I chose. I would ask that you consider providing a list of teachers whom you believe to have a deep appreciation for the professional development they have received and preferably would represent a variety of ages, years of experience, and grade level assignments. Although, this diversity in the list of teachers is not required for participation.
3. I will reach out to the teachers and ask them to participate in the study and then ask them to participate in a 30 minute interview at their convenience.

All responses to interviews will be recorded. The name of the school district, schools, principals, and teachers will all be changed, and your identity will remain anonymous.

I hope you will consider helping me by being a part of this process.

What questions might you have?

(If given the affirmative) Thank you for agreeing to participate in the process. I will follow up with an email regarding the teacher participation.

APPENDIX B: EMAIL CORRESPONDENCE WITH PRINCIPAL REGARDING TEACHER SELECTION

Hello (insert principal name here),

I'm very grateful that you have agreed to participate in my capstone project through the University of Virginia in which I'm researching the principals' practices that lead to the effective professional development of their teachers. I've chosen to focus my efforts on the "bright spots" within the district, and you have been identified as someone to learn from. In looking at the Employee Survey results, it is apparent that your teachers are satisfied with the professional development they are receiving. I'd be very interested in digging further into this to find out what specific beliefs and actions you would attribute to that success.

My research has been approved by the research office at the University of Virginia and the school system, and it is being sponsored by Dr. Z, Assistant Superintendent. There is no compensation for participating and there are no known risks to you, your school, or your teachers if you choose to participate.

First, I'd like to set up a time for us to meet for a 60 minute interview during the month of May. Could you please provide me with some dates/times that would be convenient for this interview?

Second, I would ask that you submit a list of approximately 5 teachers that I could contact for an interview. From this list, I will choose 3. I will not share with you which 3 teachers I select for the study. I would ask that you consider providing a list of teachers whom you believe to have a deep appreciation for the professional development they have received and preferably would represent a variety of years of experience and grade level assignments, although this diversity in teachers is not required for participation. I will reach out to the teachers and ask them to participate in the study and then ask them to participate in a 30 minute interview at their convenience. Please complete the table below with the names of the teachers you have identified.

Please be assured that all responses to interviews will be recorded. The name of the school district, schools, principals, and teachers will all be changed, and your identity will remain anonymous.

Again, thank you for agreeing to participate in the process. I look forward to learning more from you and your teachers.

Let me know if you should have any further questions.

Best,

Jennifer Lempp

APPENDIX C: EMAIL TO TEACHERS FOR PARTICIPATION

Dear (insert name of teacher),

My name is Jennifer Lempp. I am a graduate student in the Curry School of Education at the University of Virginia working on my capstone project for my Ed.D. in Educational Leadership.

In order to move forward in my process, I'm researching the principals' practices that lead to the effective professional development of their teachers. I've chosen to focus my efforts on the "bright spots" within the district, and your school has been identified as one I'd like to learn from. I'd be very interested in digging further into this to find out what your experiences have been with professional development and what you might attribute those learning experiences to.

My research has been approved by the research office at the University of Virginia and the school system, and it is being sponsored by Dr. Z, Assistant Superintendent. There is no compensation for participating and there are no known risks to you, your school, or your teachers if you choose to participate. The participation in this would involve your commitment to a 30 minute face-to-face interview where I would ask you about the PD experiences you have had and how you feel about those experiences.

All responses to interviews will be recorded. The name of the school district, schools, principals, and teachers will all be changed, and your identity will remain anonymous.

I hope you will consider helping me by being a part of this process.

Let me know what questions you might have and if you would be willing to participate in this study.

Thank you in advance for your time.

Best,

Jennifer Lempp

APPENDIX D: PRINCIPAL INTERVIEW QUESTIONS

Thank you for taking the time to meet with me today. The purpose of this interview is to try to understand your thoughts and experiences with professional development at your school. As I mentioned when we spoke, my capstone project through the University of Virginia is focused on the principals' practices that lead to the effective professional development of their teachers. I've chosen to focus my efforts on the "bright spots" within the district, and you have been identified as someone to learn from. In looking at the Employee Survey results, it is apparent that your teachers are satisfied with the professional development they are receiving. I'd be very interested in digging further into this to find out what specific beliefs and actions you would attribute to that success. I'm going to ask you a few questions about the professional development that is available to your staff. I recognize that professional development has looked different in the last year due to pandemic, so feel free to draw from examples prior to COVID. There aren't any right or wrong answers. I'll be recording this interview, but please let me know if at any time you would like me to turn off the recorder. I also want to remind you that your name and your school name will not be used in my final paper. A pseudonym will be used. Also, you may withdraw from this study at any time. Let's get started.

For the purpose of this study, I'm choosing to use Guskey's definition of professional development: the processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students."

1. Considering that definition, how might you describe effective PD?
    - What specific aspects or characteristics of PD are important to you?
2. I'd like you to think about the PD that has been available to your teachers in the last couple of years. When you consider this PD, can you give me an example of one that was highly effective?
    - What about it made it effective? How do you know? Note: elicit any new aspects or characteristics not previously mentioned, above.

RQ 2: ***What practices do principals use to provide teachers with effective professional development in RCPS?***

3. How did you determine what professional development opportunities to provide, or make available for teachers?
    - Observation? Request? Ongoing school improvement decisions? School test data? Evaluation?

- Do teachers choose the PD for themselves? Do you ask for input from teachers?

4. What did you do to ensure that this PD was available to teachers?
    - Did you have to manipulate the schedule? Master calendar? Budget? How so?
    - How do you ensure that the PD your teachers are receiving is effective?

RQ 1: ***What are leader and teacher perceptions about the ways in which RCPS professional development meets the needs of teachers?***

5. Do you believe that the PD that your school's teachers are receiving is meeting their needs? Why? Why not?
    - How do you determine if the PD is meeting the needs of teachers?
    - How do teachers receive feedback on their practices following PD?
    - What did you do to support teachers following the PD experiences?
6. What about the PD has been successful? How do you define success? What about it has not been successful?
    - What evidence are you looking for? What will you hear or see?
    - How do you assess the success of the PD?
    - Have you noticed changes in teacher practices after receiving PD?
        - After any certain PD opportunities specifically?

7. Is there anything else that you would like to share today before we end the interview?

Thank you so much for your participation. I would like to remind you that your responses will be kept confidential.
Have a great day.

APPENDIX E: TEACHER INTERVIEW QUESTIONS

Thank you for taking the time to meet with me today. The purpose of this interview is to try to understand your thoughts and experiences with professional development at your school. As I mentioned when we spoke, my capstone project through the University of Virginia is focused on the principals' practices that lead to the effective professional development of their teachers. I've chosen to focus my efforts on the "bright spots" within the district, and you have been identified as someone to learn from. In looking at the Employee Survey results, it is apparent that many teachers at your school are satisfied with the professional development they are receiving. I'd be very interested in digging further into this to find out what specific beliefs and actions you would attribute to that success. I'm going to ask you a few questions about the professional development that is available to you. There aren't any right or wrong answers. I recognize that professional development has looked different in the last year due to pandemic, so feel free to draw from examples prior to COVID. I'll be recording this interview, but please let me know if at any time you would like me to turn off the recorder. I also want to remind you that your name and your school name will not be used in my final paper. A pseudonym will be used. Also, you may withdraw from this process at any time. Let's get started.

For the purpose of this study, I'm choosing to use Guskey's definition of professional development: the processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students"

Tell me a little bit about the professional development that is available for you, as a teacher, this year.

RQ 3: What practices do principals use to provide teachers with effective PD in RCPS?

1. When you think about these PD opportunities, what do you think enabled you to be a part of this PD?
    - Did it work with your schedule? School calendar? Was it cost friendly? How so?
2. What specifically has your principal done to support you having these PD opportunities?
    - Find outside facilitators? Pay for substitutes?
    - Did you have input into what you attended?

- Does this tie to your goals for the year?

RQ 1: What are leader and teacher perceptions about the ways in which RCPS professional development meets the needs of teachers?

3. When you consider these PD experiences, can you give me an example of one that was highly effective?
    - What about it made it effective?
    - How did it meet your needs?
    - Did you have enough time to learn?
    - About how much time did you spend on one topic?
    - What was the focus on the PD? Math? Science? Etc…?
    - Who did you attend the PD with? Your school team? Your entire school?
    - What activities did you do in the PD? Did you talk with colleagues? Case study? Review student work? Plan?
    - Did the PD seem to align with the goals of the school? The region? The district? Or did you feel that it was disjointed?

4. Now, consider a PD opportunity that you believe was not effective. Describe that for me.
    - What made you feel that it didn't meet your needs?

RQ 2: How do RCPS teachers perceive that PD influences their instructional and assessment practices?

5. Can you think of some specific practices that changes as a result of the PD that you received?
    - What changed? Were those changes regarding content? Pedagogy? Assessment?
    - What about that PD influenced you to shift your practices?

6. If you could complete this statement for me: The best PD is _____.
    - Anything else?

7. Is there anything else that you would like to share today before we end the interview?

Thank you so much for your participation. I would like to remind you that your responses will be kept confidential.
Have a great day.

APPENDIX F: THANK YOU LETTER TO PRINCIPALS

Dear (insert principal name),

I'm very grateful for your participation in my capstone project through the University of Virginia where I'm researching the principals' practices that lead to the effective professional development of their teachers. It is apparent that your teachers are satisfied with the professional development they are receiving. I hope that through this work, we might find ways that support the professional development programs within our district as well as building capacity in other school leaders in terms of developing a professional development plan.

I want to remind you that all responses to interviews will be recorded. The name of the school district, schools, principals, and teachers will all be changed, and your identity will remain anonymous.

Again, thank you for agreeing to participate in the process.

Let me know if you should have any further questions.

Best,

Jennifer Lempp

APPENDIX G: THANK YOU LETTER TO TEACHERS

Dear (insert teacher name),

I'm very grateful for your participation in my capstone project through the University of Virginia where I'm researching the principals' practices that lead to the effective professional development of their teachers. I hope that through this work, we might find ways that support the professional development programs within our district as well as building capacity in other school leaders in terms of developing a professional development plan.

I want to remind you that all responses to interviews will be recorded. The name of the school district, schools, principals, and teachers will all be changed, and your identity will remain anonymous.

Again, thank you for agreeing to participate in the process.

Let me know if you should have any further questions.

Best,

Jennifer Lempp

APPENDIX H: DISTRICT MEMO

Action Communication One: District Memo

Subject: Successful Teacher Professional Development

Issue: Professional development is an essential component of school improvement, yet many of the learning opportunities being offered to teachers fail to incorporate the characteristics of effective PD. Additionally, leaders face several obstacles to offering professional learning for teachers. In many schools across the nation, the shortage of substitutes and the limited number of professional development days affect learning opportunities.

Research Methods: A qualitative study was used to examine the professional development experiences school leaders provide for teachers at five school sites that served as exemplary cases. First, Employee Survey data from the school district from the 2017–2018 school year as well as the 2019–2020 school year was used to identify and select five elementary schools with high results for teacher satisfaction with PD and feedback. A purposive sampling of teachers was selected, and teachers were interviewed to identify the systems leaders use to offer effective job-embedded PD. Additionally, interviews were conducted with each school's principal to identify the practices they used to ensure effective job-embedded PD for staff.

Themes: Three themes were uncovered as a result of this research:

Theme 1: Disposition of the principal

- Principal has knowledge of current state and desired state
- Principal presumes the positive of staff members
- Principal assumes a learner stance

Theme 2: Guiding principles of professional development

- Teacher autonomy
- Connection to school/district goals
- Job-embedded approach
- Team participation
- Differentiated approach
- Determining the focus of the professional development
- Concentration on coaching

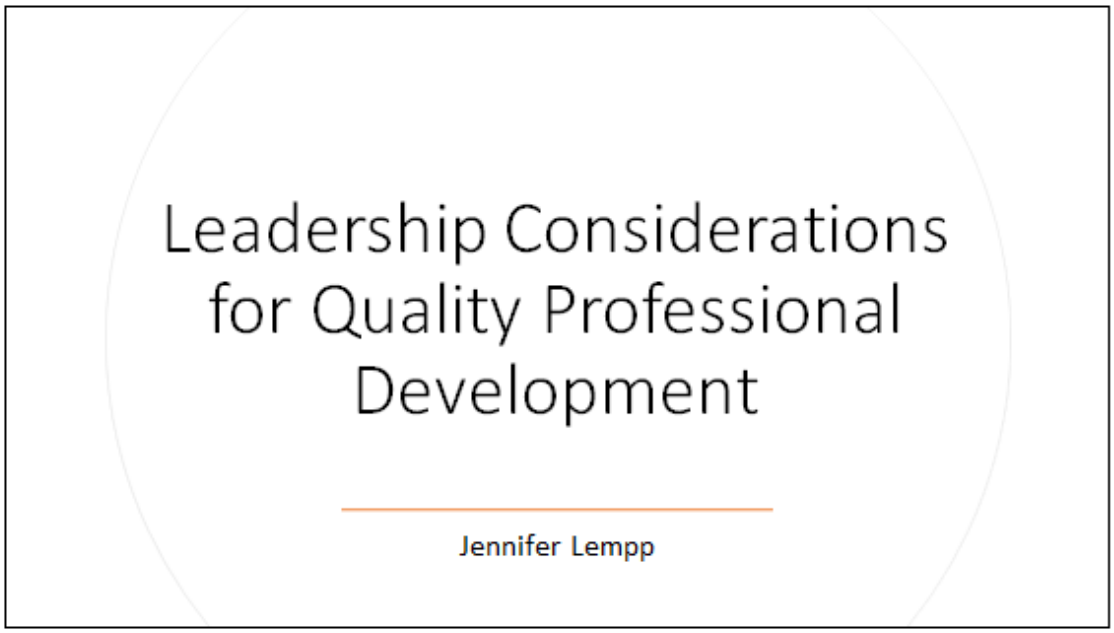
Theme 3: Creating a culture of learning through intentional recruiting and hiring practices

Recommendations: Five recommendations are suggested considering the results of this study:

1. School districts should provide continued professional development to principals on adult learning theory and effective professional development characteristics.
2. School districts should provide advance determination of district goals, staff calendar, and professional development opportunities.
3. School leaders should establish learning as a norm.
4. School and district leaders should focus on key aspects of quality professional development with regular evaluation.
5. School leaders should utilize the adults as coaches.

Summary: Findings from the study highlighted the importance of the role of the principal in shaping the professional development plan for the school and the individual considerations taken for teachers. The key decisions made by the principals in the study were shaped by their values and beliefs. The disposition of the principal determined the plan for professional development, and these values and decisions made by principals did not go unnoticed by the teachers. Teachers echoed the thoughtful considerations that were made, recognize the leadership, and were grateful for the opportunities they have been provided.

APPENDIX I: POWERPOINT PRESENTATION



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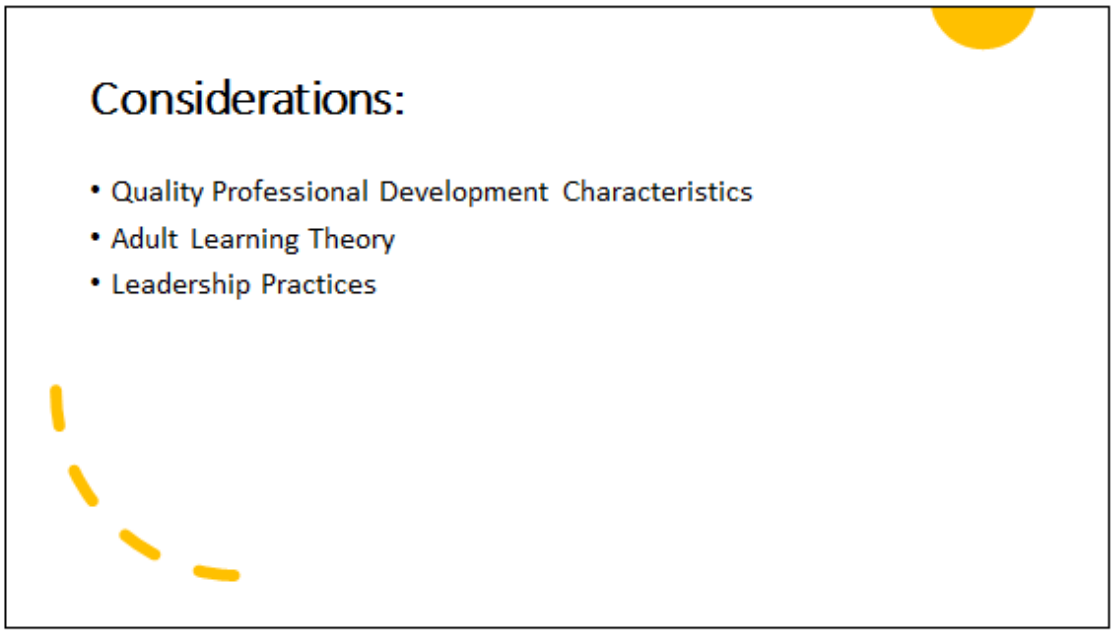

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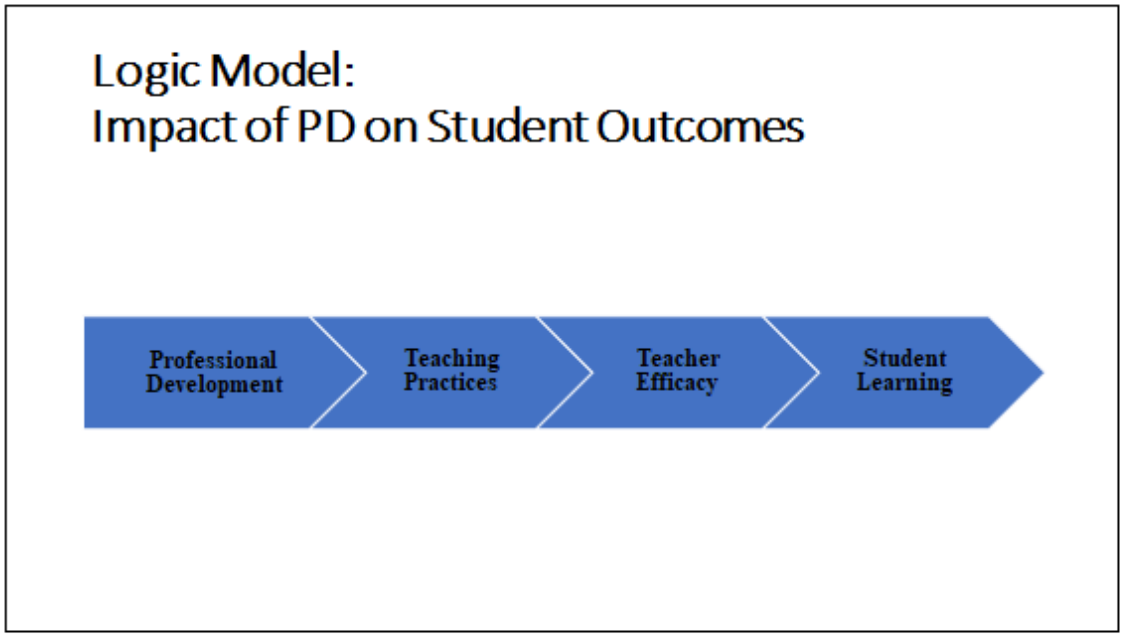
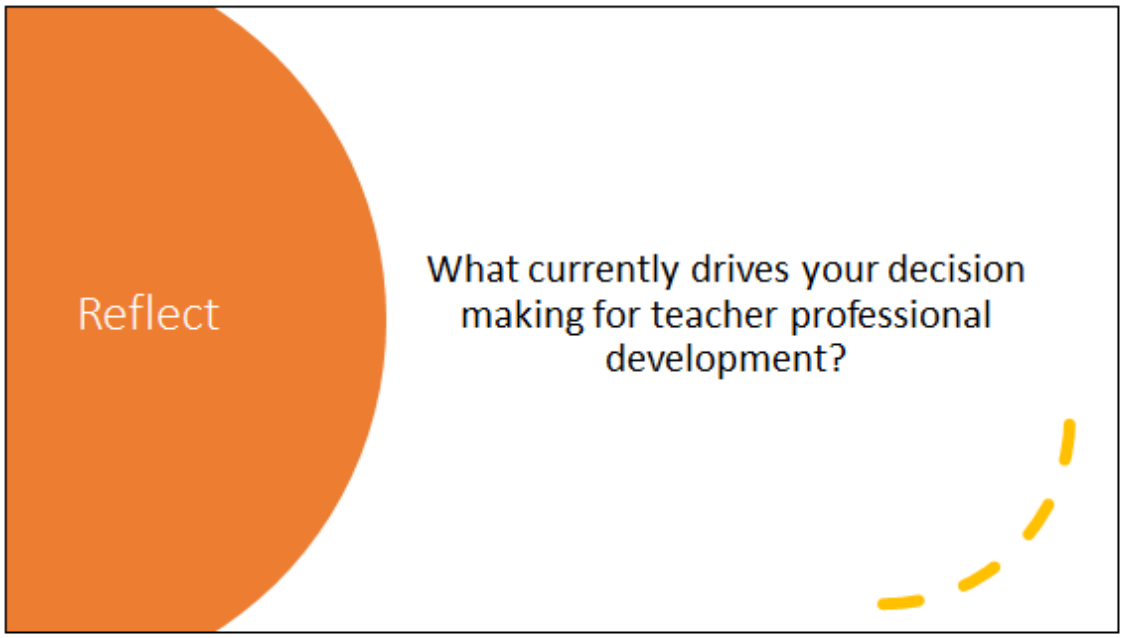

Logic Model:
Impact of PD on Student Outcomes
Professional Development
Teaching Practices
Teacher Efficacy
Student Learning

3


Reflect
What currently drives your decision making for teacher professional development?

4

Conceptual Framework

5

Quality Professional Development Characteristics

Research determined the following five important characteristics of effective PD:

1. Collective participation
2. Content focused
3. Active learning
4. Coherence
5. Sustained duration

6

Categories of Professional Development that Meet the Needs of Teachers

	Principals (n=5)	Teachers (n=11)
Support following PD	5	9
Differentiated approach	5	9
Collective participation	3	9
Relative content	3	9
Engaging learning experiences	4	6

7

Examples of Quality Content Professional Development Titles/Topics Identified by Teachers and Principals

Examples of Core Content	Example of Not Core Content
Advantage Math Recovery	Blended Learning
Cognitively Guided Instruction	Cognitive Coaching
Interactive Read-Alouds	Equity training
Literacy Collaborative	Growth Mindset
Math Labsites	Jacob's Ladder (differentiation)
Math Workshop	Portrait of a Graduate
Numeracy Collaborative	Responsive Classroom
Teachers College reading training	School Talk
	Trauma Informed Practices

8

Adult Learning Aspects

Knowles proposed principles to consider as a base for adult learning:

1. Adults are self-directed; therefore, they should have a say in the content and process of their learning.
2. Adults have experiences to draw from; therefore, their learning should focus on adding to what has been learned in the past.
3. Adults seek practical learning; therefore, content should focus on issues related to their work or personal life.
4. Adult learning should be centered on solving problems rather than on memorizing content.

9

Types of Engaging Learning Experiences Identified by Teachers and Principals

Professional development activities
Complete activities
Discussion
Read article
Review student work
Time to process
View videos of students

10

Leadership Practices

Research revealed four areas in which principals have a substantial impact on the professional development of teachers:

1. Model leading and learning
2. Create a learning environment
3. Direct involvement in the design, delivery, and content of PD
4. Assess professional development outcomes

11

Categories of Leader Practices Identified as Key for Effective Professional Development

	Principals (n=5)	Teachers (n=11)
Creating a culture of learning	5	10
Considering autonomy	5	9
Focusing on job-embedded opportunities	5	9
Creating opportunities for on-going learning	5	7
Offering differentiated opportunities	5	7
Engaging the principal as learner	5	6
Making connections to school and division goals	4	6
Enabling participation of the team	3	7

12

Changes in Practice Due to Professional Development

	Principals (n=5)	Teachers (n=11)
Knowledge of students	5	9
Content knowledge	5	8
Efficacy and preparedness	4	8
Impactful resources	3	8

13

Themes from Research

- Theme 1: Disposition of the Principal
- Theme 2: Guiding Principles of Professional Development
- Theme 3: Creating a culture of learning through intentional recruiting and hiring practices

14

Themes from Research

Theme 1: Disposition of the Principal

- Knowledge of current state and desired state
- Presumes the positive
- Assumes a learner stance

15

Themes from Research

Theme 2: Guiding Principles of Professional Development

- Teacher autonomy
- Connection to school and division goals
- Job-embedded approach
- Team participation
- Differentiated approach
- Determining the focus of the professional development
- Concentration on coaching

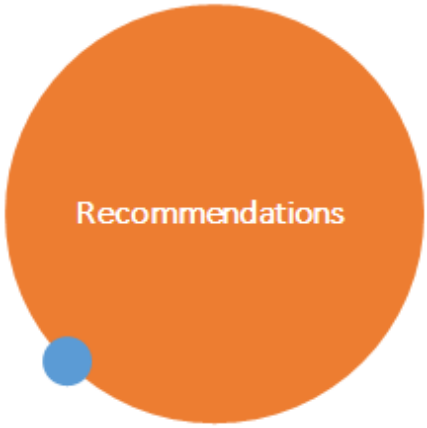
16

Themes from Research

Theme 3: Creating a culture of learning through intentional recruiting and hiring practices

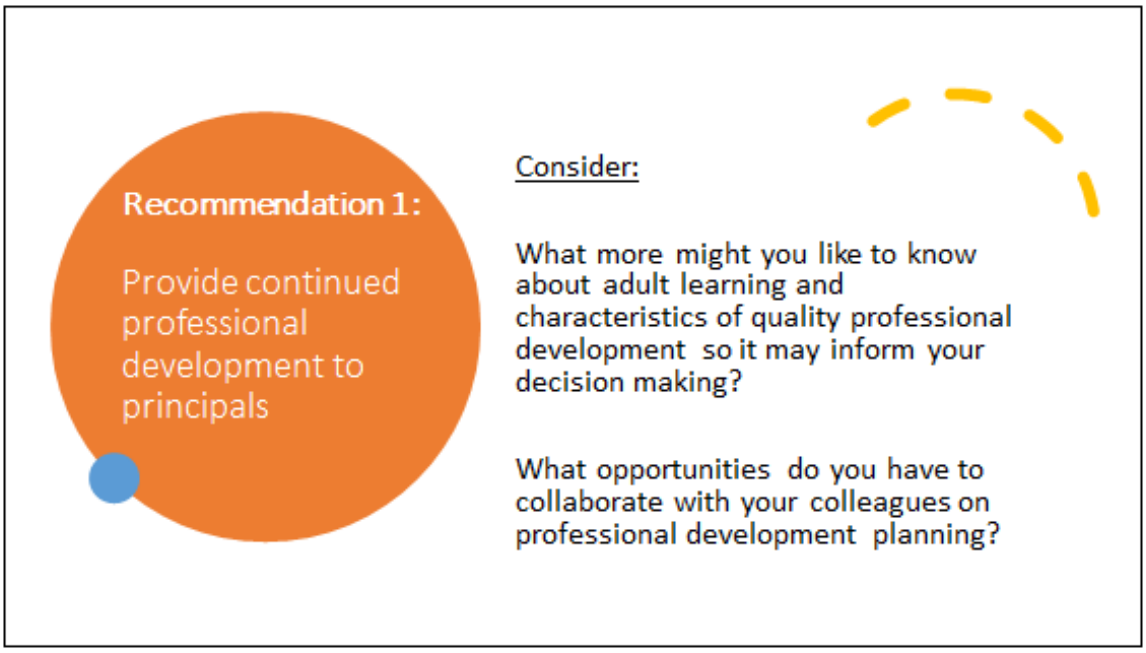
- Clear communication and purpose
- Establish tone during interview process

17

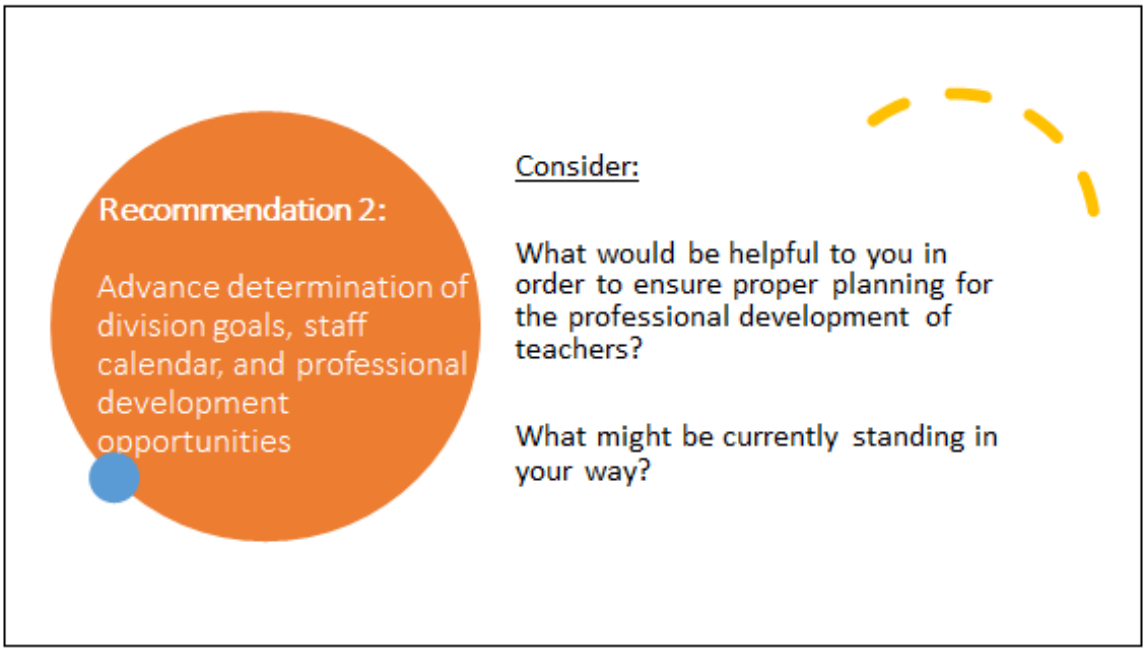


- Recommendation 1: Provide continued professional development to principals
- Recommendation 2: Advance determination of division goals, staff calendar, and professional development opportunities
- Recommendation 3: Establish learning as a norm
- Recommendation 4: Focusing on key aspects of quality professional development with regular evaluation
- Recommendation 5: Utilize the adults as coaches

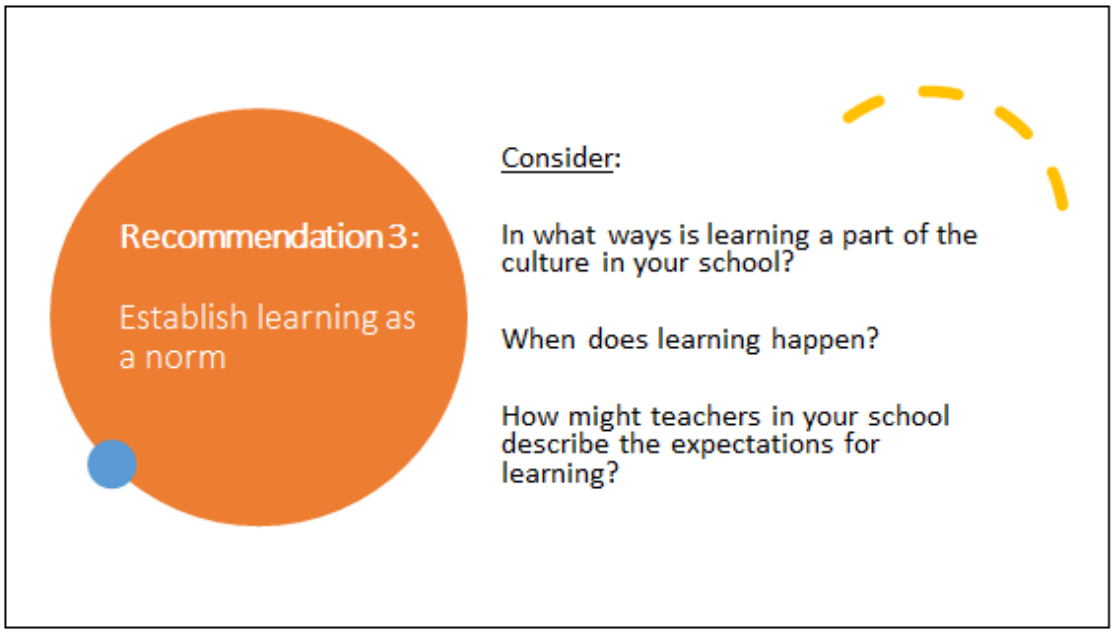
18


Recommendation 1:
Provide continued professional development to principals
Consider:
What more might you like to know about adult learning and characteristics of quality professional development so it may inform your decision making?
What opportunities do you have to collaborate with your colleagues on professional development planning?

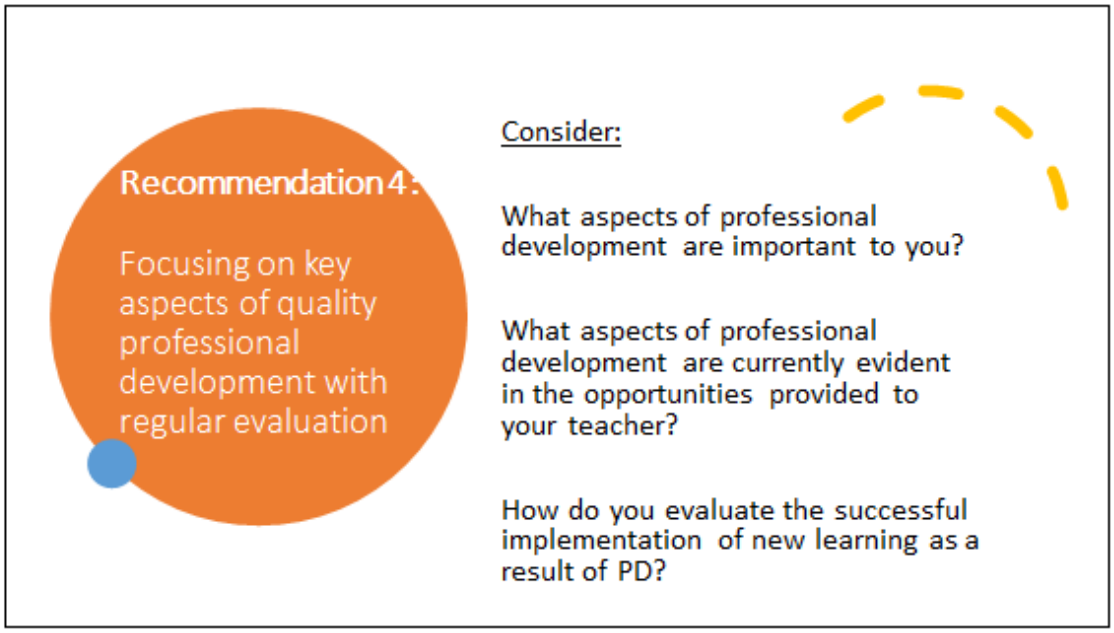
19


Recommendation 2:
Advance determination of division goals, staff calendar, and professional development opportunities
Consider:
What would be helpful to you in order to ensure proper planning for the professional development of teachers?
What might be currently standing in your way?

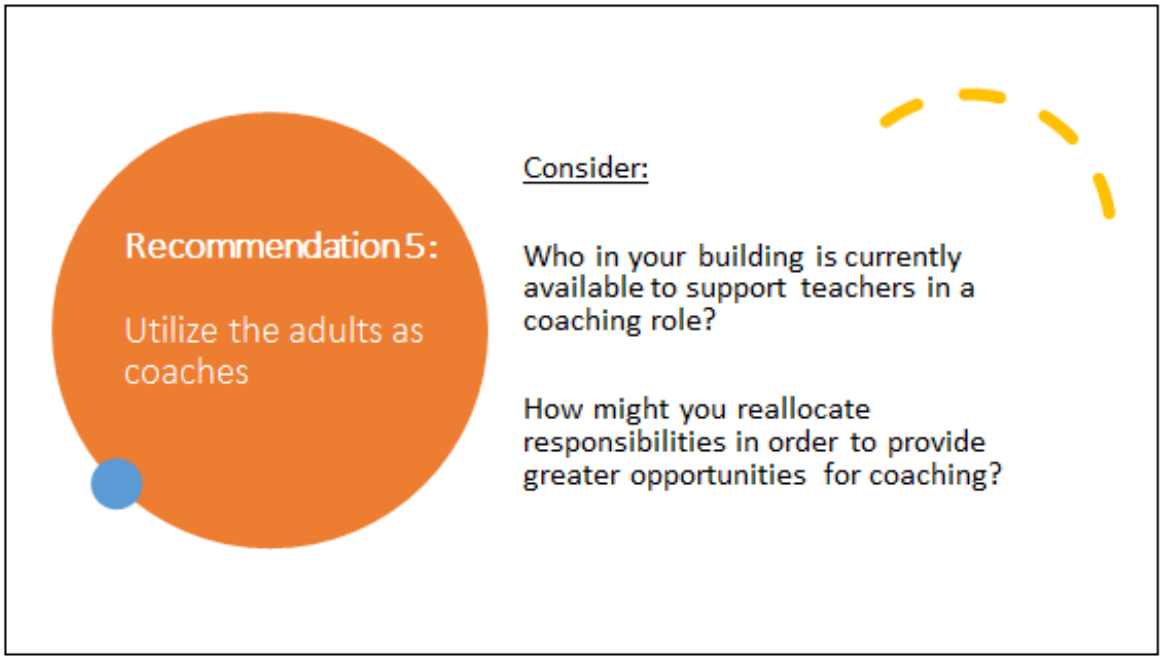
20


Recommendation 3:
Establish learning as a norm
Consider:
In what ways is learning a part of the culture in your school?
When does learning happen?
How might teachers in your school describe the expectations for learning?

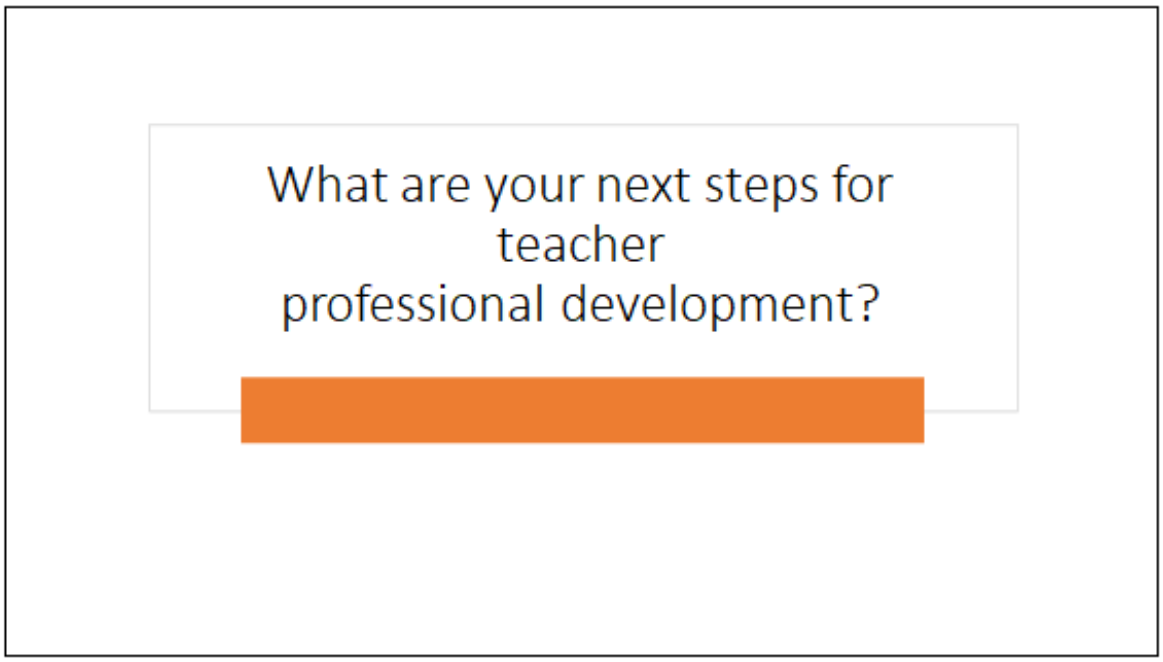
21


Recommendation 4:
Focusing on key aspects of quality professional development with regular evaluation
Consider:
What aspects of professional development are important to you?
What aspects of professional development are currently evident in the opportunities provided to your teacher?
How do you evaluate the successful implementation of new learning as a result of PD?

22


Recommendation 5:
Utilize the adults as coaches
Consider:
Who in your building is currently available to support teachers in a coaching role?
How might you reallocate responsibilities in order to provide greater opportunities for coaching?

23


What are your next steps for teacher professional development?

24

References:

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Garet, M. S., Porter, A. C., Desimone, L., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38(4),* 915 945.

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Knowles, M.S., Holton, E.F., & Swanson, R.A. (2015). The Adult Learner: The definitive classic in adult education and human resource development, 8th ed. Routledge, New York.

A full set of references can be found in:

Lempp, J.W. (2023). *The principals' roles in ensuring the professional development of teachers.* (Unpublished doctoral capstone). University of Virginia.

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APPENDIX J: PRINCIPAL ONE-PAGER

Leadership Considerations for Quality Professional Development

Quality Professional Development Characteristics:

Research determined the following five important characteristics of effective PD:

1. collective participation
2. content focused
3. active learning
4. coherence
5. sustained duration

Adult Learning Aspects:

Knowles proposed principles to consider as a base for adult learning:

1. Adults are self-directed; therefore, they should have a say in the content and process of their learning.
2. Adults have experiences to draw from; therefore, their learning should focus on adding to what has been learned in the past.
3. Adults seek practical learning; therefore, content should focus on issues related to their work or personal life.
4. Adult learning should be centered on solving problems rather than on memorizing content.

Leadership Practices:

Bredeson's research revealed four areas in which principals have a substantial impact on the professional development of teachers:

1. model leading and learning
2. create a learning environment
3. direct involvement in the design, delivery, and content of PD,
4. assess professional development outcomes.

Themes from Research:

Themes from the research conducted for this study included:

1. Disposition of the principal
2. Guiding principles of professional development
3. Creating a culture of learning through intentional recruiting and hiring practice

Recommendations:

As a result of this study, five recommendations are presented:

1. Provide continued professional development to principals
2. Advance determination of division goals, staff calendar, and professional development opportunities
3. Establish learning as a norm
4. Focusing on key aspects of quality professional development with regular evaluation
5. Utilize the adults as coaches

Lempp, J.W. (2023). *The principals' roles in ensuring the professional development of teachers* [Unpublished doctoral capstone]. University of Virginia.

(See for a full list of references)