Case Study: Examining Teachers' Perceptions of Need in Areas Crucial for Preparation and Practice in Five Pacific Northwest Districts

by

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DISSERTATION ABSTRACT

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Title: Case Study: Examining Teachers' Perceptions of Need in Areas Crucial for Preparation and Practice in Five Pacific Northwest Districts

This dissertation investigates the perceived effectiveness of teacher preparation and professional development programming in enhancing critical pedagogical skills and teaching outcomes. An examination of the research base identifies four critical areas: clinical experience and classroom practice, culturally responsive professional development, technological advancements and 21st-century skills, and collaboration and mentorship opportunities as a basis for developing teaching knowledge and skills. The study employs a mixed-methods case study approach, exploring teachers' experiences, perspectives, and practices during pre-service preparation and since entering the teaching profession, with a particular focus on the role of school building administrators in influencing teacher professional development. Data is collected through survey and interview with teachers at various career stages, in both urban and rural settings. The dissertation is structured around an exploratory framework that includes thematic analysis to uncover the importance of and path to supporting effective teaching in the four critical areas. The study addresses the following research questions:

1. How do teachers perceive the effectiveness and quality of the four critical areas in their teacher preparation programs?
2. What elements do teachers identify as essential in teacher training and professional development based on their perceptions and experiences?

By addressing these questions, the dissertation aims to contribute to the ongoing refinement of the supports that districts and school administrators provide for teachers, ensuring they align with the evolving needs of educators, educational systems, and research-proven professional development. The study underscores the importance of teacher voice in identifying and addressing areas in need of systematic change informed by teachers' professional needs. The longer-term goal of this research is to create a responsive and dynamic framework that supports teacher training within districts, with a focus on continuous improvement and adaptation, equipping educators with the necessary knowledge and skills to thrive and contribute effectively to classroom teaching and learning.

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DEDICATION

For my parents, children, grandchildren, and my wife Stephanie, who continue to push me to be the best son, father, grandfather, and husband. I want my children and grandchildren to always know to go after their dreams and that they can accomplish anything.

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CHAPTER I

INTRODUCTION

Teacher education programs have long served as the foundation for preparing teachers for the workforce and are a cornerstone of the public educational system across the United States. These programs aim to equip prospective teachers with an initial foundation and the essential tools for effectively teaching students. Over the years, pre-service education programs have sought to adapt to the ever-changing challenges that educators face in meeting the needs of a diverse student population once entering schools. This shift encompasses various dimensions, including cultural backgrounds, socioeconomic statuses, learning styles, and life experiences. As institutions welcome and graduate students from increasingly diverse backgrounds, they must implement inclusive practices alongside those in the schools they enter to foster an environment where everyone feels valued, supported, and empowered to thrive academically and personally.

I first examine how teacher education programs approach challenges, including a declining workforce (Ball & Forzani, 2009) and evolving demands on teachers, and then analyze whether they and school-based professional development adequately support teachers. The literature identifies the necessary skills teachers should acquire and then develop and refine to be successful in the classroom. These four areas prioritize essential knowledge and skills teachers need to learn during preparation and implement as professionals in the classroom: (a) clinical experience and classroom practice (Darling-Hammond, 2017); (b) culturally responsive professional development (Ladson-Billings, 1995); (c) technological advancements and 21st-century skills (Crompton, 2023); and (d) collaboration and mentorship opportunities to support the transition into the profession (Ingersoll & Strong, 2011).

These four areas are critical for effective teaching. Additionally, teacher training and professional development must seamlessly integrate clinical experience and classroom practice to provide aspiring educators with practical, hands-on training (Darling-Hammond, 2017). This hands-on experience enhances their pedagogical skills and prepares them for the challenges they will face in their future classrooms. Furthermore, culturally responsive professional development is crucial to ensure that educators can effectively address the diverse needs of students from various backgrounds (Gay, 2018). By fostering cultural competence and awareness, teachers can create inclusive learning environments where all students feel valued and supported.

Additionally, integrating technology into the classroom and emphasizing 21st-century skills is essential for equipping teachers with the tools and strategies necessary to engage students in today's digital world and prepare them for the demands of the ever-changing classroom (Crompton, 2023). Lastly, collaboration and mentorship programs play a pivotal role, especially, although not exclusively, in the early years of teacher development by providing ongoing support and growth opportunities (Hobson et al., 2009). By fostering a sense of voice and community among teacher educators, these programs create spaces for sharing best practices, seeking advice, and engaging in reflective dialogue, ultimately contributing to continuous improvement in teaching practices. All four areas are indispensable, and they collectively provide a strong foundation for the knowledge, skills, and support to thrive in today's diverse and rapidly evolving educational landscape.

In the context of teacher preparation and the classroom skills of our teachers, the integration of clinical experience, culturally responsive professional development, technology integration, and collaboration/mentorship emerge as critical pillars for preparing effective educators (Crompton, 2023; Darling-Hammond, 2017; Gay, 2018; Hobson et al., 2009). Each

area contributes uniquely to the development of teachers who are not only pedagogically adept but also culturally competent, technologically savvy, and well-supported in their professional growth. However, despite recognizing their importance, gaps exist in understanding the interconnections and impact of these areas within teacher preparation and professional development.

In this study, I investigated this problem of practice by surveying school staff across various experience levels—early-career teachers and more experienced educators—to gather insights into their perceptions and experiences during teacher preparation and subsequent classroom practice. Additionally, a follow-up interview with a seasoned teacher was conducted to delve deeper into themes revealed in survey data and what they look like when operationalized in a quality teacher preparation program, school district support, and professional development. Ideally, the findings will deepen our understanding of adequate teacher preparation and professional development in ways that inform future practices.

Foundations and Factors Shaping Teacher Education Initiatives

Teacher education traces back to the 19th Century, pioneered by Horace Mann in the United States. Mann (1848), in his report to the Massachusetts Board of Education, stated, "Education, then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance wheel of the social machinery" (p. 2). Mann (1848) emphasized that public investment in education would benefit the whole nation by transforming children into literate, moral, and productive citizens (Kober & Rentner, 2020). In doing so, he laid the foundation for teacher preparation and professional development and focused on providing teachers with the training to deliver standardized curricula in public schools. This approach led to more student-centered and diverse teaching methods (Cochran-Smith & Zeichner, 2005).

Since then, and in response to societal change, universities and school districts have continually evolved their approach to teacher preparedness (Ladson-Billings, 1999).

Over time, various teacher preparation models have emerged, driven by advancements in both practice and research on teaching and learning. Recently, there has been a shift towards alternative training programs, online education, and the recruitment of pre-program teacher candidates, which has expanded the available pathways for teachers and their preparation for the classroom. Douglas-Gardner and Callender (2022) conducted a qualitative study using semi-structured interviews to explore global discourses on teacher preparedness. This study involved eight teacher educators from the UK, USA, Japan, South Africa, and Guyana, with 3-23 years of teaching experience. Data were collected through face-to-face, phone, and email communications. The researchers highlighted the evolution and diversification of teacher preparation pathways, discussing the emergence of alternative certification programs aimed at addressing teacher shortages and recruiting candidates from non-traditional backgrounds through fast-track routes that leverage prior subject-matter expertise and practical experiences. The researchers found that the effectiveness of these alternative pathways varied by program, underscoring the ongoing debate over which models best prepare teachers for the diverse challenges and needs of students. Douglas-Gardner and Callender (2022) suggested that while some programs can be highly effective, their quality and outcomes significantly depend on their specific design and implementation, with implications for what and how teachers learn in both pre-service and after joining the profession.

Effectiveness varies by program, with ongoing debate over which model best prepares teachers for the challenges and needs of the students. Cochran-Smith and Zeichner (2005) examined such models and the impact of different educational programs on various aspects of

teacher recruitment, retention, and quality across the United States. They conducted a detailed analysis of traditional and alternative teacher education training, focusing on seven preservice programs with diverse conceptual emphases and structural characteristics. These included one 5-year program, four 4-year programs, and two alternative certification programs. The study followed teacher candidates from program entry through completion, using surveys, interviews, and classroom observations to gather data on their learning experiences and teaching effectiveness. They found that alternative certification programs could effectively recruit teachers for hard-to-staff schools and achieve teacher retention, although the effectiveness varied significantly across different programs once teachers were in the classroom.

The debate about the effectiveness of different models of teacher preparedness continues due to inconsistent findings on teacher quality and student performance, with some studies showing no significant difference in student achievement between teachers from traditional and alternative training (e.g., Douglas-Gardner and Callender, 2022). In contrast, others suggest that specifically structured alternative training, including those with extensive mentoring and collaborative supports, can produce competent teaching (Cochran-Smith & Zeichner, 2005).

Evolving Obstacles Faced by Teacher Training Approaches

The evolving landscape of teacher preparedness and ongoing professional development training reflects broader challenges in education. The dynamic connection between teacher readiness and development and the K-12 schools they support stands as an essential and ongoing concern (Darling-Hammond, 2017). Teacher readiness has encountered significant challenges, such as demands for increased accountability, heightened academic standards, and improved assistance for novice educators (Ingersoll & Strong, 2009). Challenges such as teacher attrition, strong program and school mentorship, and integration of technology into the classroom

continue to be imperative elements for teacher preparation (Ladson-Billings, 1995). Darling-Hammond (2017), a renowned policy expert at Stanford, dove deeply into these challenges of teacher preparedness by comparing teaching systems in Australia, Canada, Finland, and Singapore with those in the United States. She drew attention to the alarming trend of teacher attrition, a direct consequence of the increase of what she terms "new week programs" (p. 302) in U.S. teacher training. These programs offered shortened preparation pathways, leading to unprepared teachers entering the workforce, particularly in high-need areas. Darling-Hammond (2006) claims that this approach has caused increased teacher attrition due to the lack of necessary skills upon entering schools and ongoing supports once in classrooms, which has led to frustration and burnout among teachers (National Commission on Teaching in America's Future, 2023).

Earlier, Ingersoll (2009) debunked the myth of a general teacher shortage, identifying teacher attrition due to job dissatisfaction as the real issue. Ingersoll presented high turnover rates (e.g., 15.7% in 2000-2001) and argued that teachers lack autonomy, including in critical areas like behavior management and curriculum decisions, contribute to professional dissatisfaction. Ingersoll emphasized the need to balance bureaucratic organization and professional autonomy, allowing teachers to make individual judgments. Ingersoll (2009) highlights the importance of teachers' social and behavioral roles in growing practice, often neglected by reforms focused on test scores. He advocated for holistic teacher trainings that include liberal learning and the development of dispositions like compassion and integrity, while pointing out that accountability policies can undermine teacher autonomy and satisfaction and negatively affect retention and teacher/school effectiveness.

Earlier yet, Darling-Hammond (2006) wrote, “I would argue that teacher educators, as a professional collective, need to work more intently to build on what has been learned about developing stronger models of teacher preparation” (p. 302). Darling-Hammond (2017) shared how Ontario, Canada, reduced teacher attrition by implementing stronger models that provided explicit and ongoing learning supports for teachers, leading to increased student achievement and sustained improvement. Finland and Singapore lowered attrition rates by transforming teaching contexts into professionally supportive environments and avoiding less extensive pre-service preparation programs. She identified core concepts that should be present, “These three core concepts include: (1) knowledge of learners and how they learn; (2) understanding of curriculum content and goals; and (3) understanding of and the skills of teaching, including content pedagogy” (p. 303). While Ingersoll (2009) and Darling-Hammond (2006) are nearly 20 years old, their findings and advocacy highlight critical teacher-driven approaches to pre-service and professional development training that remain relevant in today’s schools and classrooms.

Additionally, the challenges of integrating technology into the classroom are significant. Ball and Forzani (2009) discussed the challenges of technology integration in teacher preparedness, including increased costs, maintenance, and external pressure for measurable outcomes, while emphasizing the need for a practice-focused curriculum. Their study, conducted in the United States, involved teacher educators and novice teachers, highlighting the importance of creating instructional activities that enable novices to practice and refine their teaching skills in realistic environments, such as university classrooms and elementary schools. The study assessed the effectiveness of teaching practices and the ability of novice teachers to perform essential tasks through observations and critiques of practice sessions. Ball and Forzani (2009) recommended strategies to enhance teacher preparation and professional development, including

establishing a common language for instruction, identifying core teaching tasks, providing opportunities for supervised practice, and fostering strong leadership and ongoing supports to sustain and improve technology integration efforts in education. Such shifts necessitate teacher training to adapt and ensure that teachers are well-prepared for the classroom.

Promoting diversity and inclusivity in teacher education is crucial for preparing educators to meet the needs of diverse student populations. DeLuca (2012) studied a Canadian teacher education program through interviews with selection committee members and administrators, finding that inclusive education benefits student achievement, self-perceptions, and social integration. However, subjective admission processes pose challenges. Vescio et al. (2009) examined the importance of diversity and inclusivity through a seminar on critical pedagogy at a U.S. university with seven doctoral students, highlighting the need for transformative learning to challenge educators' biases. Additionally, Banks (2004) evaluated the import of multicultural education, advocating for substantial reforms at every educational level to equip educators with the necessary knowledge and skills to teach in diverse classrooms. Each of these studies recommend equity-based policies that evaluate candidates' dispositions toward inclusivity. These policies also promote critical self-reflection, provide diverse experiences, foster a collaborative learning environment, and bridge theory with practical application in classrooms. As such, teacher trainings must cultivate strategies and habits of mind for preparing and growing culturally responsive teachers, helping bridge the gap between the teaching workforce and the diverse student population. Their recommendations aim to develop teachers to effectively address the diverse needs of students (Banks, 2004; DeLuca, 2012; and Vescio et al., 2009).

Research and evidence-based practices continue to underscore the importance of reforming teacher education and the need for adaptation. Webster-Wright (2009) critiques

traditional top-down professional development models, advocating for a shift toward authentic professional learning that emphasizes teacher voice, reflection, collaboration, and situational learning. Her study, conducted in Australia, involved a review of existing professional development practices and proposed an alternative approach grounded in evidence from educational research. Diery et al. (2021) highlighted the significance of evidence-based practice in teacher education by surveying 484 university-based teacher educators across 28 universities in Germany. They identified challenges faced by these educators and recommended addressing them while strengthening the connection between research and practical application by equipping future teachers with research-based knowledge on effective teaching strategies. Far earlier, Tafel (1984) had emphasized the necessity of integrating future thinking into teacher education programs to prepare educators for societal changes. Her study, based in the United States, involved an analysis of educational practices and future research implications for teacher training. This process entails developing innovative teacher preparation that promotes lifelong learning and adaptability. These hands-on experiences serve as a critical bridge between theoretical knowledge and practical application, enabling teachers to effectively apply pre-service knowledge and skills in authentic educational settings once teaching in their classrooms (Darling-Hammond, 2017).

Key Areas Important to Teacher Training and Professional Development

In the dynamic landscape of education, teacher training and professional development play a pivotal role in shaping the competencies and perspectives of educators (Darling-Hammond, 2006, 2017). Training generally must equip teachers with the knowledge and skills needed to effectively navigate and support diverse classrooms. In close succession, Banks (2004), Darling-Hammond (2006), along with Korthagen et al. (2006), emphasized four key

areas that are particularly important for teacher training and professional development to focus on in order to prepare teachers: (a) implementing clinical teaching experiences and practical classroom practices (b) enhancing culturally responsive teaching skills, (c) integrating technological advancements while fostering 21st-century skills, and (d) promoting collaboration and mentorship opportunities. In the following four subsections, I introduce these four critical areas alongside a select portion of relevant empirical research that highlights influence on teacher training and development. Following these subsections, I expound more deeply into each of the four areas, emphasizing their role in reaching desired teacher and student outcomes and characteristics when implemented in teacher preparation and professional development contexts.

Clinical Teaching Experiences

Korthagen et al. (2006) examined the importance of clinical teaching experiences and classroom practices as foundational to teacher preparedness. Incorporating multiple documented research studies, the researchers identified the significance of meaningful relationships between schools, universities, and student teachers, alongside the development of reflective practices and peer-supported learning, as crucial components for effective teacher education. They concluded that successful teacher training must emphasize experiential learning, reflective practice, and close collaboration between educational institutions to prepare pre-service teachers for the complexities of real-world teaching, effectively bridging the gap between theoretical knowledge and practical application. These experiences offer aspiring educators hands-on opportunities to implement pedagogical theories in actual classroom settings.

Moreover, Darling-Hammond (2006) discussed how clinical experiences are essential for developing effective teaching strategies and classroom management skills. Her study examined the characteristics of seven exemplary teacher education programs across public and private

institutions, including both undergraduate and graduate programs of varying sizes. It emphasized that direct engagement with students enables future teachers to gain valuable insights into diverse learning styles, cultural backgrounds, and individual needs. The study recorded significant improvements in graduates' preparedness from their first days in the classroom by involving faculty members and administrators in qualitative evaluations. These programs promoted reflective practices, encouraging educators to critically evaluate and adapt their teaching methods, ultimately enabling novice teachers to perform at the level of seasoned veterans and effectively teach diverse learners.

Culturally Responsive Teaching

Furthermore, culturally responsive teaching is essential for creating inclusive and equitable learning environments. Gay (2018), Ladson-Billings (1999), and Lambeth and Smith (2016) collectively emphasize the critical importance of culturally responsive teaching for educators. Ladson-Billings' (1999) extensive literature review, framed within critical race theory, highlighted systemic failures in integrating multicultural education into teacher preparation. It emphasized the need for teachers to understand their cultural identities and biases to engage effectively with diverse student populations. The more recent study by Lambeth and Smith (2016) built on foundations argued in Ladson-Billings (1999), involved 21 graduate students in a southern U.S. graduate program and revealed that pre-service teachers felt unprepared to teach culturally diverse students and required specific strategies and mentorship support once in classrooms. Gay (2018) underscored the significance of culturally responsive teaching by highlighting its potential to enhance academic achievement for students of color by utilizing their cultural backgrounds as assets. Gay's (2018) work, which included extensive theoretical and practical analysis of teaching practices, advocates for comprehensive approaches

to teacher training involving ongoing reflection, self-assessment, and development and application of actionable classroom strategies. All three studies advocate for teacher training and development that offers targeted supports and practical training that challenge dominant top-down teaching and learning paradigms to better prepare educators for culturally diverse classrooms.

By learning about and integrating culturally relevant content, instructional materials, and teaching strategies into their classroom practices, teachers can create learning experiences that resonate with students from diverse backgrounds. Culturally responsive teaching fosters students' sense of belonging and empowerment, ultimately enhancing academic achievement and social-emotional well-being. According to Lambeth and Smith (2016):

> In promoting culturally responsive teaching, [the researchers] call upon pre-service teachers to consider their positions in relation to their students, which is necessary for fostering effective teacher-student relationships. This involves teachers understanding how their own cultural backgrounds and assumptions can impact their teaching and making a conscious effort to understand and integrate the diverse cultural backgrounds of their students into their teaching practices. This approach helps diminish the cultural boundaries between teachers and students and empowers students by validating their cultural identities within the educational setting. (p. 47)

Relatedly, Weinstein et al. (2003) conducted a qualitative study at the Rutgers Graduate School of Education. The study involved analyzing classroom scenarios to illustrate cultural misunderstandings in classroom management. Their findings highlighted the need for teachers to reflect on their biases, understand students' cultural contexts, and recognize societal discrimination in schools. This included creating inclusive physical environments, establishing

clear behavioral expectations that consider cultural differences, and communicating consistently. Building caring classroom communities and fostering positive relationships with families were also emphasized. These practices aimed to promote social justice and equitable learning opportunities. Weinstein et al. (2003) emphasized that:

> Culturally responsive classroom management (CRCM) begins with understanding oneself, the other, and the context. Teachers are encouraged to develop cultural competence by recognizing their own cultural backgrounds and biases, as well as the implications these have on their interactions with students. Through this awareness, teachers can create an inclusive classroom environment that fosters a sense of belonging for students and empowers them by affirming their cultural identities while providing equitable opportunities for learning (p. 269).

Both Lambeth and Smith (2016) and Weinstein et al. (2003) argue that building a foundation of cultural awareness should translate into active classroom strategies that respect and integrate students' diverse backgrounds into everyday teaching practices. This transition from awareness to action, from pre-service exercises to actual classroom teaching is crucial for creating a classroom environment that supports the educational needs of teachers and students in constantly changing and advancing school settings.

Technology and 21st-Century Skills

In today's digital age, integrating technological advancements and promoting 21st-century skills are essential in teacher training and development. Both Koehler et al. (2013) and Henriksen et al. (2016) authored theoretical articles that review existing literature and teaching and learning models, suggesting context-specific technology integration in teacher education programs and school-based professional development. Koehler et al. (2013) introduced the

Technological Pedagogical Content Knowledge (TPACK) framework, emphasizing the vital integration of content, pedagogy, and technology knowledge for effective teaching. They highlighted the complex nature of modern classrooms, where flexible and context-specific knowledge structures are crucial for successful technology integration. Similarly, Henriksen et al. (2016) explored the role of creativity alongside educational technology in 21st-century education, advocating for a systemic approach that encompasses teacher education, assessment, and policy. They proposed a model in which creativity emerges from the interaction of individuals, domains, and fields, underscoring the significance of teacher beliefs and contemporary digital technologies in facilitating creative educational practices.

Both Henriksen et al. (2016) and Koehler et al. (2013) recommended that teacher training and development prioritize the of integration of subject area, instructional, and creativity-enhancing pedagogies alongside technology. Henriksen et al. (2016) also emphasized designing and implementing systemic supports for teachers at various levels, including policy and assessment. In other words, practical and effective teaching should promote flexible, creative uses of technology tailored to specific subjects, and educational policies must support these approaches by fostering environments conducive to innovation and creative problem-solving. By addressing these areas, educators can better equip teachers and students for the challenges of the 21st century teaching and learning.

Mentoring and Collaboration

Moreover, educators must cultivate critical thinking, creativity, collaboration, and communication skills among their students—essential competencies for successful teaching and learning in the 21st century (Partnership for 21st Century Skills, 2009). Koehler et al. (2013) continued by stating, “The inclusion of technology in pedagogy further complicates teaching,

creating new challenges and requiring new forms of teacher knowledge" (p. 13). Koehler et al. (2013) highlighted the need for integrating 21st-century skills and technologies in teacher training and professional development to effectively prepare educators. Furthermore, Henriksen et al. (2016) asserted that teacher education is a "core driver of how new teachers see the profession, how they interact with students and develop their classroom practices and repertoire" (p. 5), an assertion that supports the notion that ongoing support for implementation evidence-based teaching practices with new technologies can promote knowledge and skill development integral to modern classroom environments.

Finally, collaboration and mentorship opportunities are essential to effective teacher preparation and professional development. Ingersoll and Strong (2011) critically reviewed 15 empirical studies on induction and mentoring programs for beginning teachers in the United States, involving thousands of participants across educational contexts. The researchers found that structured induction and mentoring programs for early career teachers improve teacher retention, classroom practices, and student achievement. Comprehensive mentor training and ongoing support for beginning and experienced teachers are also crucial for promoting equity and social justice in education. Ingersoll and Strong stated, "In recent years, a growing number of states, school districts, and schools have developed and implemented induction support programs for beginning teachers. These programs are designed to improve the performance and retention of beginning teachers, thereby enhancing and preventing the loss of teachers' human capital, with the goal of fostering student growth and learning" (p. 202). Because ongoing mentorship offers teachers guidance, support, and professional development opportunities from experienced educators (Hellsten et al., 2009), such collaborative professional learning experiences allow educators to engage with peers, exchange ideas, and co-create and apply

innovative teaching practices (Villegas & Lucas, 2002). Furthermore, Allensworth et al. (2009) noted that novice teachers in Chicago Public Schools cited the lack of collegiality among peers as one of the main reasons for leaving the teaching profession. By promoting collaboration and mentorship schools can cultivate a supportive community where educators and students can thrive and grow.

Teacher and Student Outcomes and Training and Development

Following these subsections, I expound more deeply into each of the four areas, emphasizing their role in reaching desired teacher and student outcomes and characteristics when implemented in teacher preparation and professional development contexts.

Integration of Clinical Experience and Classroom Practice

Clinical teaching experiences and classroom practice offer aspiring educators invaluable opportunities to apply theoretical knowledge in real-world classroom settings, honing their instructional techniques and classroom management skills. Through hands-on engagement with diverse student populations, prospective teachers can develop a deep understanding of pedagogical strategies tailored to meet the needs of every learner. Moreover, these experiences foster reflective practices that allow educators to continually refine their approaches and adapt to the evolving landscape of education. Thus, integrating robust clinical teaching experiences into teacher preparation is essential for equipping educators with the competencies needed to excel in the classroom. These experiences bridge theory and practice, enabling teacher candidates to apply what they have learned in their coursework to real-world educational settings. Darling-Hammond (2017) remarked, “Clinical teaching experiences are an essential component of effective teacher preparation. They provide a context for teacher candidates to develop their teaching skills, knowledge, and professional dispositions” (p. 18).

Connection to Desired Teacher and Student Outcomes. Through clinical teaching experiences, future educators gain hands-on practice in managing classrooms, addressing diverse student needs, and adapting evidence-based teaching strategies to various learning styles and classroom settings. These practical opportunities are crucial for developing essential classroom management skills, which novice teachers often find challenging (Ingersoll & Strong, 2011). By engaging with the daily realities of classroom life in real world classroom contexts, teacher candidates and early-career professionals become better equipped to tackle classroom management issues and create a supportive learning environment.

Furthermore, clinical teaching experiences assist teacher candidates and early-career professionals in developing cultural competence around understanding the important role that diversity plays in the classroom. Diverse student populations in today's schools demand teachers who can engage with and address the unique needs of students from various cultural backgrounds and learning needs. Classroom-based training experiences offer opportunities for pre-service teachers to interact with diverse students and cultivate an awareness of cultural nuances and inclusive teaching practices (Villegas & Lucas, 2002). Yopp and Guillaume (1999) argued that effective collaboration through clinical practice in teacher training can enhance instructional strategies and teaching practices of both the pre-service teacher and classroom teacher. They noted that through collaborative activities, such as planning instruction and developing materials, teachers learn from one another, which improves the quality of their professional practice.

Furthermore, Rock and Levin (2002) discussed how collaboration helps teachers clarify their personal teaching theories in a supportive environment. This process is instrumental in enabling teachers to become more analytical and reflective about their teaching practices while

fostering a deeper understanding of their roles as educators. They go on to state, “Preservice teachers, through the process of collaborative action research [and] collecting data directly from students, not only heightened preservice teachers’ focus on their students but also enhanced their ability to cater to diverse learning needs and preferences” (p. 16).

Teacher Preparation and Professional Development. In teacher preparation, the integration of clinical teaching experiences features a significant emphasis on reflective practice. Zeichner and Liston (2013), in their study published in the *Harvard Educational Review*, critiqued conventional teacher training and development. They explained how often this training inhibited the self-directed growth of student teachers by focusing primarily on pre-existing skills and techniques. Zeichner and Liston further asserted that structured reflection is crucial in enabling teachers to refine their pedagogical approaches. During these experiences, teachers engaged in a continuous cycle of observing their own teaching, receiving constructive feedback from mentor teachers and supervisors, and analyzing this feedback to enhance their instructional strategies, classroom management skills, and overall teaching effectiveness. They emphasized the importance of ongoing revision and refinement based on feedback and research to ensure the achievement of their educational goals. This process promotes professional growth, allowing early career teachers to evolve into competent, reflective practitioners who are committed to the principles of lifelong learning, as emphasized by Ingersoll (2009). Through such structured and reflective clinical experiences, teacher training and development cultivate an environment conducive to the growth of reflective educators who adeptly adapt their teaching practices based on critical self-assessment and feedback.

Additionally, the implementation of collaborative action research projects, as discussed by Rock and Levin (2002), has distinct characteristics that enhance both pre-service and

professional teacher development. These projects provide a structured framework that promotes the clarification of personal teaching theories within a collaborative and supportive environment. This characteristic is pivotal as it fosters teachers' capacity for intense reflection and continuous improvement in their teaching practices. Furthermore, the process actively involves collecting and analyzing student data, which directs teachers' attention toward understanding and addressing students' diverse needs and perspectives. This exposure is crucial for preparing teachers to develop and adapt teaching strategies that respond to student needs, thereby enhancing their effectiveness in future classroom settings (Hobson et al., 2009).

Incorporating clinical teaching experiences into teacher preparation programs and professional development in schools equips educators with essential skills and knowledge while fostering a professional identity rooted in collaborative real-world practice. These experiences are crucial for building a strong foundation for their teaching careers, helping ensure they are well-prepared to meet the diverse and ever-evolving needs of contemporary classrooms (Ingersoll & Strong, 2011).

The Value of Culturally Responsive Professional Development

In addition to integrating clinical experience and practical classroom experiences into teacher preparation and professional development, incorporating culturally responsive pedagogy and practices is crucial for developing adept teachers. Weinstein et al. (2003) discussed how culturally responsive professional development (CRPD) is an indispensable component of modern teacher preparation programs, particularly in today's diverse educational landscape. CRPD encompasses a comprehensive approach to training educators that acknowledges and embraces classroom cultural diversity. Weinstein et al. (2003) continued explaining that CRPD goes beyond mere awareness of cultural differences, actively equipping future teachers with the

knowledge, skills, and dispositions necessary to engage effectively with students from various cultural backgrounds. This form of professional development emphasizes integrating culturally relevant pedagogy, practices, and perspectives into teaching methodologies. It empowers future educators with the tools to engage effectively with students from various cultural backgrounds and create inclusive learning environments. As Ladson-Billings (1995) emphasized, "Teachers must be equipped with the tools to respond to the cultural needs of their students" (p. 227), making culturally responsive professional development an imperative component of teacher preparation programs.

Connection to Desired Teacher and Student Outcomes. In teacher training and professional development, integrating CPRD offers teachers a rich framework to develop and test their teaching theories within a supportive and community-oriented environment. Rock and Levin (2002) advocated for this framework based on their action research study involving five preservice teachers paired with their on-site mentor teachers. The researchers emphasized the importance of these opportunities for novice teachers, highlighting how culturally responsive teaching practices can enable them to reflect on and continually refine their teaching methods to meet their students' diverse needs better. This approach enhances their professional growth and fosters an inclusive and supportive learning environment for all students. Rock and Levin (2002) found that the collaborative action research process helped novice teachers clarify their teaching philosophies, gain self-awareness, focus on student needs, acquire context-specific knowledge about teaching and curriculum, and understand the importance of reflection, inquiry, and collaboration. These findings emphasize the value of structured, hands-on inquiry and reflection in teacher training and development, highlighting how such experiences enhance the professional development of teachers by helping them better understand their teaching practices, student

needs, and the educational environment. as Rock and Levin (2002) stated, “Active involvement in analyzing students’ cultural experiences steers teacher candidates toward an in-depth understanding of their students’ diverse needs and perspectives. CRPD is critical for tailoring teaching strategies to those needs, thus enhancing their future classroom efficacy” (p. 13).

Zeichner and Liston (2013) also identified CRPD as essential to teacher growth. Their study, conducted with elementary student teachers at the University of Wisconsin-Madison, critiqued traditional teacher education programs that follow an apprenticeship model, arguing that this approach hinders student teachers’ self-directed growth. Instead, they advocated for an alternative model that emphasizes reflective teaching, greater teacher autonomy, and increased participation in educational governance. Zeichner and Liston (2013) stated, “Through receiving and processing feedback from mentor teachers and university supervisors, teacher candidates engage in a dynamic growth process, sharpening their instructional strategies, classroom management skills, and overall pedagogic effectiveness” (p.10).

Furthermore, Zeichner and Liston (2013) provided a critical perspective on teacher training, arguing that while an emphasis on instructional methodology and learner psychology is crucial, there is a dire need for future educators to understand the broader societal and cultural contexts of schooling. They contended, “programs tend to emphasize instructional methodology and the psychology of the learner in the university coursework and to underscore survival strategies...classrooms and schools are not insulated environments...cultural assumptions, social influences, and contextual dynamics [impact] the reality of school life” (p. 10). By drawing attention to the cultural and social conventions that permeate diverse educational environments, Zeichner and Liston (2013) advocates for a more holistic approach to teacher training and

professional development—one that prepares pre-service and professional educators to navigate and influence the complex ecosystems of modern schools.

Finally, adding to these foundational experiences, Ginsberg and Wlodkowski (2019) conducted a study in which graduate students, primarily white, aspiring teachers, and aspiring educational leaders, shadowed a low-performing high school student. The activity was intended to help the graduate students understand the experiences and needs of low-performing high school students better, promoting the view of students as unique individuals. This approach emphasized integrating intrinsic motivation into teacher education to foster deeper connections and meaningful learning experiences. They underscored the role of CPRD in teacher development and asserted the importance of educators' ability to navigate emotional and social challenges and engage deeply with CRPD. Ginsberg and Wlodkowski (2019) stated, "By merging motivation-based theories with practical teaching experiences, educators can foster academic and social-emotional development, creating an inclusive and effective learning atmosphere that addresses the comprehensive needs of their students" (p. 54). When teachers modify their instructional methods and assessments to accommodate various learning styles and cultural backgrounds, students are more likely to thrive academically and feel a sense of belonging (Zeichner & Liston, 2013).

Teacher Preparation and Professional Development. CRPD and structured reflection implement distinct characteristics in teacher preparedness to foster comprehensive educator development. Rock and Levin (2002) stated that such programs offer a structured framework essential for developing teachers, guiding them through the iterative process of action and reflection. This framework not only aids in clarifying teaching theories but also necessitates the

active engagement of teachers in reflecting on their own experiences and the impact on students, thus equipping them to meet the varied needs of their future students.

Likewise, Siwatu (2007) conducted a mixed methods study that investigated the self-efficacy beliefs of 192 preservice teachers regarding culturally responsive teaching (CRT). The study utilized an explanatory mixed methods design. In Phase 1, they collected quantitative data using the CRTSE scale to assess the teachers' confidence in performing CRT practices. In Phase 2, follow-up interviews with eight selected preservice teachers explored their experiences during their teacher education program and how these influenced their beliefs. Siwatu found significant disparities in exposure to CRT practices, emphasizing the importance of mastery and vicarious experiences. It highlighted that practicum experiences are crucial in developing novice and early career teachers' confidence and competence in CRT. Teachers were critical of their opportunities to develop knowledge of CRT in their classrooms. Siwatu (2007) stated, "They believed that these opportunities did not allow them to develop in-depth knowledge of culturally responsive teaching such as relevant procedural and conditional knowledge" (p. 1097). This study underscores the necessity for comprehensive, hands-on professional development experiences to supplement teacher education programming to prepare teachers for diverse classrooms.

Implementing CRPD helps teachers gain a deeper understanding of cultural diversity, equity, and social justice. It promotes cultural competence, allowing educators to value and honor the various backgrounds, experiences, and perspectives that their students bring to the classroom. By grasping the cultural contexts of their students, teachers can develop inclusive curricula and teaching practices that more effectively address the needs of all learners (Gay, 2018). Growing CRPD over time equips teachers with strategies to adapt their teaching methods, ensuring that all students have equal opportunities for success. This approach aligns with the

principles of differentiated instruction and advances the development of culturally sustaining pedagogy (Paris & Alim, 2014).

Furthermore, CRPD focuses on self-reflection and awareness of implicit biases. By addressing their cultural biases and preconceptions, teachers can become more effective educators who create a safe and affirming spaces for learning. As Sleeter (2001) pointed out, "Continuing business as usual in preservice teacher education will only continue to widen the gap between teachers and children in schools" (p. 96). By embedding these practices in teacher training, schools and teachers foster inclusive and empowering learning environments that benefit all students, (Sleeter, 2001). Moreover, Ginsberg and Wlodkowski (2019) argued that "intrinsic motivation should be included in teacher education, positing that the capacity to manage emotional and social challenges is indispensable for creating a culturally inclusive and effective learning environment" (p. 54). Additionally, Zeichner and Liston (2013) emphasized the importance of understanding the broader cultural and social contexts in which education occurs, suggesting that without this concerted attention, teacher education programs risk preparing educators who are ill-equipped for the realities of school life.

Transforming Education through Technology and 21st Century Skills

Incorporating technological advancements and 21st-century skills into teacher training prepares educators to meet the demands of today's rapidly evolving educational design. Integrating technology and cultivating of 21st-century skills equips teachers with the tools and competencies to effectively engage students, foster creativity and critical thinking, and prepare them for the modern workforce (Hicks, 2011). Technological advancements have transformed how education is delivered, making it imperative for teacher preparation programs and

professional development to keep pace with these changes. As Prensky (2001), in his theoretical analysis of observations and existing literature, argued:

> Digital natives, the current generation of students, have grown up with technology as an integral part of their lives. Thus, educators must be proficient in leveraging technology to engage students, enhance instruction, and facilitate personalized learning experiences. Integrating technology in teacher preparation programs equips future educators with the skills to effectively use digital tools, such as learning management systems, multimedia resources, and educational apps, to adapt to the changing needs of their students and create innovative learning environments. (p. 3)

Thus, embedding technology alongside 21st-century skills in the classroom, such as critical thinking, creativity, collaboration, and communication, is essential for students to thrive in a rapidly changing world. Teachers must cultivate these skills in themselves to effectively model and teach them to their students.

Trilling and Fadel (2009), in their comprehensive review of existing research, theories, and practices, asserted that "21st-century skills are indispensable for preparing students to be lifelong learners and productive citizens" (p. 24). They emphasize the importance of these skills in navigating the complexities of a globally connected and technologically advanced world. Their framework encompasses learning and innovation skills such as creativity, critical thinking, problem-solving, communication, and collaboration. Additionally, it highlights the necessity of integrating technological skills, including digital literacy, media, and information and communication technology literacy, along with and 21st century skills, including flexibility, adaptability, initiative, self-direction, social and cross-cultural skills, productivity, accountability, leadership, and responsibility.

Connection to Desired Teacher and Student Outcomes. The integration of 21st-century skills into teacher education programs is vital for enhancing the capabilities of both educators and their students. The following studies underscore the significance and impact of these skills in educational contexts.

Lim et al. (2013), in their descriptive and analytical review, synthesized existing research and emphasized that integrating technological advancements and 21st-century skills into teacher preparedness is indispensable for equipping future educators with the necessary tools and competencies to thrive in modern classrooms. Lim and colleagues continued that equipping educators with these competencies is critical for fostering environments that support 21st-century skills such as problem-solving, collaboration, and digital literacy. Lim et al. (2013) stated, "Technological pedagogical content knowledge enables teachers to create rich, engaging educational experiences that prepare students for the complexities of the modern world" (p. 61). This approach ensures that educators are not only users of technology but also innovators in leveraging these tools to enhance learning outcomes.

Furthermore, the direct outcomes for students resulting from technology usage in schools encompass increased engagement and an improved ability to link their learning experiences with new concepts. Lim et al. (2013) corroborated this finding, indicating that these outcomes include heightened student engagement and the capacity to forge better connections between prior learning experiences and new concepts. Their research revealed that incorporating technology into classrooms transformed learning processes, enabling students to assume more active roles in their education by utilizing technology for searching, analyzing, and sharing information. This increased engagement allowed students to connect their previous learning experiences with new concepts more effectively, fostering a deeper understanding and retention of the material. Lim et

al. (2013) reinforce this argument by stating in their research, “Students have also taken on a more active role in their own learning process by using technology to search for and collate information and publish and share their findings. They are now more engaged and able to form better connections between their previous learning experiences and the new concepts or principles being taught” (p. 59). They further emphasized that technology facilitates a shift in the role of the teacher, allowing for more effective support and monitoring of student progress. They note, “This engagement is critical as it equips students with competencies necessary in the 21st-century marketplace, such as searching for, analyzing information, solving problems, communicating, and collaborating. These skills are vital for students to compete and succeed in a globalized, digital world” (p. 60).

Koehler et al. (2013) introduced the Technological Pedagogical Content Knowledge (TPACK) framework. This study was conducted in various educational environments, primarily involving pre-service and in-service teachers across diverse subject areas. Koehler and colleagues demonstrated that TPACK-enabled teachers created engaging learning contexts, presented content in various ways, utilized innovative assessment strategies, and encouraged collaborative learning. They clarified that, “At the heart of good teaching with technology are three core components: content, pedagogy, and technology, plus the relationships among and between them” (p. 14). On this basis, the TPACK framework offered a robust model for integrating technology into teaching, emphasizing the dynamic interaction between content area knowledge, instructional pedagogy, and technology use, thus providing practical guidelines for enhancing teacher and student outcomes.

This integrated approach to teaching and learning broadly helps develop creative thinking methods, profound comprehension of learned material, and the use of unique technological tools.

Integrating technology contributes directly to desired teacher outcomes by fostering a deep understanding and application of technology in educational practices. Weissblueth et al. (2014) appears to agree and described a course titled "Educating for the Future," which equips teachers with high-order thinking skills through technology-assisted pedagogy. They stated, "The course included several stages, programs, mini projects, and learning environments adapted for a 'technology-assisted pedagogy' based on Intel methodology" (p. 900). The impact is potentially significant as a generation of teachers become adept at using technology and understanding how to integrate it with content area and pedagogical practices to enhance learning.

Lastly, Urbani et al. (2017) examined developing and modeling 21st-century skills necessary for teachers. The study involved 54 preservice teachers, including 39 graduate and 15 undergraduate students, enrolled in multiple subjects. Participants ranged in age from 20 to 60 years and were 75% White, 15% Latina/o, 7% Asian, and 3% African American, with 10% identifying as male. Urbani and colleagues found that simultaneous integration of 21st-century skills in coursework and field experiences significantly enhanced preservice teachers' competencies and their ability to incorporate these skills into their classroom teaching. Urbani et al. (2017) highlighted how creativity, a critical 21st-century skill, is developed through specific activities. Teachers should be encouraged to design activities that foster creative problem-solving skills among students. They noted, "You get other differentiated ideas that you can create and modify" (Urbani et al., 2017, p. 41). This example illustrates how engaging with creative educational practices can achieve desired student (and teacher) outcomes by encouraging innovative thinking and problem-solving skills.

Teacher Preparation and Professional Development. Furthermore, incorporating technology and 21st-century skills into teacher preparation programs enhances graduates'

marketability and readiness for a highly competitive teaching market. Crompton' s studies (2017, 2023) investigated the impact of the International Society for Technology in Education (ISTE) Standards for Educators on student learning outcomes, highlighting their positive role in improving teacher effectiveness and student engagement as they learned them pre-service and applied them as professional educators. Similarly, Urbani et al. (2017) conducted a mixed-method study examining the development and modeling of 21st-century skills—creativity, critical thinking, communication, collaboration, and information, media, and technology skills (IMTS)—in preservice teachers at the University of California. Crompton (2017; 2023) found that the adoption of ISTE Standards led to significant learning gains and increased student engagement through effective technology integration. He noted that educators adhering to ISTE Standards exhibited greater technological proficiency and confidence, fostering innovative teaching practices and enhanced student outcomes in their classrooms. Urbani et al. (2017) demonstrated that the simultaneous integration of 21st-century skills in coursework and field experiences significantly improves preservice teachers' competencies and their ability to incorporate these skills into their teaching. Collectively, these studies emphasize the necessity of adopting innovative standards that integrate technological and 21st-century learning skills in teacher training and professional development to promote effective teaching and improved student learning. Urbani et al. (2017) stated, "For students to be competent in a global society, K-12 teachers need to develop, model, and assess the 21st-century skills in their students" (p. 27).

School administrators expect teachers to be increasingly tech-savvy educators capable of preparing students for this digital and information-driven age. As reflected in the ISTE standards, teachers must be proficient in effectively integrating technology and teaching digital citizenship in their classrooms (Crompton, 2017). Districts can incorporate these skills into their

professional development programs by equipping educators who can design curricula and instructional strategies that foster student growth in these vital areas (Trilling and Fadel, 2009). This is supported by Kowalczuk-Waledziak et al. (2019), who conducted a qualitative study in the University of Bialystock, Poland, and emphasized the need for collaboration among all stakeholders to create effective teacher education programs that are adaptable to the 21st century and ever-changing global educational landscapes. By developing such competencies, educators are better prepared to foster learning environments that promote critical thinking, creativity, and effective use of technology in learning.

In a systematic review of other research, Galindo-Dominguez (2021) further explained the importance of integrating technology into the classroom. He states, "Integrating technology and 21st-centruy skills correctly applied, could be considered as an active learning methodology as it is an instructional method that engages students in their learning process" (p. 44). By fostering technology proficiency and developing essential skills like critical thinking, creativity, and collaboration, teacher preparation programs contribute to creating educators who can provide students with the skills and knowledge they need to succeed in the 21st century (Douglas-Gardner & Callender, 2022). These programs are essential for preparing a generation of educators who can effectively navigate and contribute to the dynamic terrain of education.

Finally, in a study conducted as part of Iovinelli's (2020) dissertation at National Louis University, the program assessed the interplay between professional development, leadership, and technology implementation in the Modern Mind Community Unit School District's 1:1 technology initiative. Iovinelli (2020) emphasized the importance of high-quality, continuous, and job-embedded professional development, along with the critical role of strong leadership in fostering a collaborative and supportive school culture. The findings highlight that successful

technology integration in education necessitates a strategic focus on enhancing educator capacity and promoting a positive cultural shift towards embracing technology to improve teaching and learning. Iovinelli (2020) claimed that the tools and competencies needed for educators to thrive in modern classrooms heavily rely on professional development and leadership in technology implementation. She identifies essential skills such as critical thinking, problem-solving, collaboration, agility, adaptability, initiative, entrepreneurship, effective communication, information analysis, and fostering curiosity and imagination. These competencies are vital for educators to adapt and respond to the evolving educational demands of the 21st century, where technology integration is crucial. "Technology implementation does not occur by placing computers in every classroom or even in every child's hands. The goal is to transform the practice of teachers to better serve the needs of 21st-century students" (p. 73). Iovinelli (2020) advocates for ongoing professional development and personalized support for educators to effectively use technology to enhance student learning and address diverse educational needs. These competencies also support the transformation of traditional educational practices to more closely align with the demands of the modern world.

Cultivating Collaboration and Mentorship Opportunities

Similar to the feedback loops incorporated in clinical teaching experiences, once prospective teachers are formally placed in classrooms, cultivating collaboration and mentorship opportunities is of utmost importance in supporting their transition into the teaching profession and helping retain them long-term. These mechanisms play a pivotal role in easing the transition, providing essential support, and helping new educators thrive early on in their careers. Collaboration and mentorship contribute to developing professional competence and creating a supportive and nurturing teaching community.

Collaboration between novice teachers and more experienced colleagues effectively shares knowledge, strategies, and experiences. Ingersoll and Strong (2011) found that collaborative practices are crucial for retaining teachers and reducing burnout. Specifically, their review identified that beginning teachers who participated in collaborative trainings demonstrated comparatively better teaching skills like "keeping students on task, using effective questioning techniques, adjusting classroom activities to meet students' interests, maintaining a positive classroom atmosphere, and demonstrating successful classroom management" (p. 201). Ingersoll and Strong (2011) asserted that the collaborative networks built during such induction are instrumental in supporting early educators' professional growth and longevity.

Relatedly, formal mentorship may impact early educators' success and retention. Feiman-Nemser (2001a) highlighted the significant positive impact of mentor teachers on early educators, particularly in enhancing their confidence and teaching competence. In her qualitative case study, Feiman-Nemser (2001a) explored the concept of "educative mentoring," which involved deep engagement in reflective and practical learning processes. She argued that mentor teachers provide essential supports such as emotional reassurance, guidance in classroom management, lesson planning, and adapting teaching styles to meet diverse student needs. Additionally, mentors facilitated the integration of early educators into the teaching community, helping them navigate the profession's challenges and understand its culture. Overall, Feiman-Nemser (2001a) suggests that well-implemented mentorship programs are critical for the successful induction of novice teachers, leading to improved teaching skills and greater professional satisfaction. Feiman-Nemser (2001a) highlights the effectiveness of mentorship programs in improving teacher retention, stating, "Effective mentoring includes providing emotional and instructional support that meets the evolving needs of beginning teachers" (p. 26).

Mentorship relationships are valuable as they provide new teachers with individualized support tailored to their unique needs and challenges (Feiman-Nemser, 2001a; Ingersoll & Strong, 2011).

Fostering collaboration and mentorship opportunities is crucial in facilitating the transition of prospective teachers into the profession—they essentially extend the learning opportunities presented during teacher preparation into the classroom (Peterson & Williams, 1998). These initiatives promote a sense of belonging and provide novice educators with the guidance, resources, and emotional support necessary for success in the early stages of their careers (Ingersoll & Strong, 2011). By creating a culture of collaboration and mentorship, teacher preparation training, and professional development can better prepare and retain highly effective early career educators, ultimately benefiting teachers, students and schools (Feiman-Nemser, 2001b). Ingersoll and Strong (2011) emphasizes the importance of this approach, noting that "strong induction programs that include mentoring, support from administrators, and collaborative opportunities not only increase retention but also improve the effectiveness of teachers" (p. 208).

Promoting collaboration and mentorship is instrumental in guiding novice educators and aligns seamlessly with the evolving landscape of teacher development. As discussed earlier, the emphasis on fostering a culture of collaboration is particularly important considering the shifting paradigms in education (Ingersoll & Strong, 2011). As teacher preparation plays a pivotal role in shaping educators, the historical approach to education, once centered on public investment and the development of well-rounded citizens, has undergone significant transformation (Ball & Forzani, 2009; Kober & Rentner, 2020). Cochran-Smith (2005) maintained, "The current educational milieu, marked by diverse and student-centered teaching methods, underscores the need for a collaborative and mentorship-oriented ethos in both schools and teacher preparation

initiative" (p. 26). This dynamic and relationship-oriented approach that moves along a continuum from entering through early career educators ensures that novice teachers are well-prepared for their profession's challenges and adept at navigating the contemporary educational landscape, ultimately benefiting educators and their students (Feiman-Nemser, 2001b).

Connection to Desired Teacher and Student Outcomes. Various sources provide insightful perspectives and data in exploring the connection between mentorship and desired outcomes for teachers and students. In an early, though notable, study. Blank and Sindelar (1992) explored new teachers and their assigned mentors within an Illinois school district detailed the mentoring programs' development, execution, and impacts on both mentors and novice teachers. They emphasized that mentoring is vital to professional development in the education sector. They argue that effective mentoring not only supports novice teachers in navigating the complexities of their roles but also fosters collaboration and continual professional growth amongst early career and more experienced teachers, which is crucial for achieving high levels of student engagement and learning outcomes. The researchers argued their findings linked research and practice "leading to increased professional competence in work with students, increased student achievement, and interactions with colleagues that promote a more productive school environment" (p. 22).

Zhang and Zeller (2016) mixed methods study in eastern North Carolina involving 60 initially licensed teachers, investigated the relationship between teacher preparedness and retention further supported these findings and points out the importance of robust support systems, including mentorship, as critical for sustaining teacher motivation and effectiveness over time. Such systems, the researchers found, improved student outcomes, particularly in academic performance and social-emotional development. Structured mentorship supports

novice teachers in navigating classroom challenges and contributes to greater student engagement and academic achievement—especially in high-need schools—by enhancing teacher confidence, instructional quality, and continuity (Ingersoll & Strong, 2011; Zhang & Zeller, 2016).

Similarly, Kolman et al.'s (2017) study on urban teacher residency programs in high-needs school districts examined the mentoring practices of mentor teachers, focusing on how they support the individual learning needs of their resident students. Their study demonstrated that mentoring programs significantly improved teacher retention rates, with participants showing higher retention than national averages. Moreover, mentees exhibited enhanced instructional skills, evidenced by improved classroom management, lesson planning, and adaptability, leading to better student performance on standardized tests and increased student engagement. Kolman et al. (2017) noted, "Mentorship within the context of a collaborative and supportive educational environment significantly boosts teacher confidence and skill levels, which are critical for effective student learning outcomes" (p. 97).

These studies underscore the significant role of mentorship in connecting the desired outcomes for teachers and students. As Blank and Sindelar (1992) suggested, the synergy between mentoring and professional development elevates individual educators and enhances the educational environment, ultimately benefiting student learning and achievement. They stated, "Mentoring can be seen as a growth process where both mentors and mentees rejuvenate their commitment to the profession through the collaborative and reflective nature of the mentoring relationship" (p. 25). They emphasized the value of mentorship as a strategic component of educational collaboration and professional development in fostering effective teaching and enriching learning experiences.

Teacher Preparation and Professional Development. Mentorship and collaboration in teacher training and professional development play a pivotal role in shaping the effectiveness of educators. Various studies emphasize the importance of creating supportive, collaborative, and student-centered learning environments. Kolman et al. (2017) illustrate how mentorship is a relational process where mentor teachers (MTs) and novice teachers engage in co-teaching and co-planning, fostering an inclusive and student-centered approach. Furthermore, Kolman et al. (2017) stated, "Mentor teachers and their mentees collaborate to create inclusive, learner-centered environments that not only support but enhance the learning process" (p. 97). The program incorporated a rigorous selection process for mentoring teachers to ensure they align with the program's philosophy and can cultivate a collaborative environment. The program's success relates to the mentoring teachers' ability to provide caring, student-centered classroom practices and their experience collaborating with professional peers. Mentorship and collaboration are essential for developing a supportive and enriching educational atmosphere that benefits both mentors and mentees.

Coffey et al. (2019) conducted a descriptive case study within Charlotte, North Carolina public schools and the University of North Carolina, which involved high school students, teachers, and university faculty, that specifically focused on elements of the Charlotte Teacher Early College program. She and her colleagues emphasized the strategic pairing of mentors and novice teachers based on shared backgrounds and interests, facilitating strong and positive relationships vital for the growth of future educators. This approach ensures that mentorship is not just a formality but a meaningful exchange that enriches both the mentor's and the mentee's experiences in the educational field. Coffey et al. (2019) described how "mentors are carefully paired with students based on similar backgrounds and interests to facilitate strong, positive

relationships" (p. 47), which mirrors the broader educational goals of inclusivity and responsiveness to diverse educational needs.

Just recently, while Goldhaber et al. (2020) found no statistically significant impact on student teaching-mentoring collaboration on student achievement during the actual year of the partnership, they did find modest positive *causal* impacts on students' math and reading achievement in the mentoring teachers' classrooms in the years following—implying that mentoring teachers pedagogical skills improved after teaching and collaborating with novice teachers. Indeed, the researchers found that mentoring teachers were measurably more effective *after* serving as a mentor, illustrating the bidirectional nature of growing teaching knowledge and skills when pre-service/novice teachers are paired and learn alongside with more veteran educators. These perspectives collectively underscore the complex and multifaceted role of mentors and mentees play in teacher preparation and professional development efforts. By focusing on collaborative and inclusive practices, training efforts not only enhance the professional growth of novice teachers but also bolster the knowledge and skills of more seasoned professional educators.

Transforming Higher Education for the Preservation of Public Schools

In conclusion, pre-service teacher training and in-service professional development have been pivotal in preparing educators and shaping educational design (Ball & Forzani, 2009). The historical approach envisioned by Horace Mann (1848), which emphasized public investment in education to cultivate well-rounded citizens, has evolved significantly over the years toward more student-centered and diverse teaching methods (Cochran-Smith & Zeichner, 2005).

Challenges faced by teacher training today include increased accountability, higher standards, and support for novice educators (Ingersoll, 2009). These issues intersect with teacher

attrition, achievement disparities, and the need for culturally responsive teaching (Ladson-Billings, 1999). The relationship between teacher training and K-12 schools remains critical for the survival of public education (Darling-Hammond, 2017). Thus, various teacher preparedness and development models have emerged in response to changing educational practices and research, as alternative certification programs, online education, and diverse recruitment methods expand teacher opportunities (Russell & Martin, 2001). However, the effectiveness of training and development varies, resulting in an ongoing debate about the most effective approaches (Cochran-Smith & Zeichner, 2005).

A critical foundation exists given the increasing emphasis on evidence-based practices in teacher training and the integration of cutting-edge research findings into curricula (Tafel, 1984). This foundation fosters diversity and inclusivity (DeLuca, 2012) and recognizes the complexities of multiple and overlapping identities (Banks, 2004). As the educational landscape evolves, with a renewed focus on continuous professional development to enhance program effectiveness (Rock & Levin, 2002), teacher training and development must maintain a commitment to ongoing transformation and evolution. This commitment is essential to ensure these programs stay responsive and adaptable to the ever-changing demands of classroom teachers. By incorporating the latest research, embracing diversity, and promoting continuous professional development, pre-service teacher training and in-service professional development can establish themselves as dynamic institutions capable of preparing educators to meet the needs of all students in today's modern classrooms. These programs must adjust to emphasize the following:

1. Clinical experience and classroom practice (Darling-Hammond, 2017)
2. Culturally responsive professional development (Ladson-Billings, 1995)
3. Technological advancements and 21st-century skills (Crompton, 2023)

4. Collaboration and mentorship opportunities to support the transition into the profession (Ingersoll & Strong, 2011).

The landscape of teacher education is undergoing dynamic transformation, influenced by historical legacies, contemporary challenges, and the necessity for continual adaptation. Educators like Horace Mann (1848) contributed to the evolution from foundational visions to current evidence-based practices and inclusivity, highlighting the journey of preparing educators amidst diversity, complexity, and the enduring pursuit of excellence (Bastian et al., 2018).

Teacher training and professional development efforts must effectively navigate these challenges by committing to ongoing evolution, emphasizing clinical experiences, cultural responsiveness, technological integration, and collaborative mentorship (Darling-Hammond, 2017). Rust (2010) asserted, "The dramatic change needed will require a redefinition of teacher education, extending it beyond preservice preparation to encompass the ongoing support of teachers throughout their professional lives" (p. 5). By embracing these principles, teacher training and development can more effectively meet the demands of contemporary educational systems and significantly contribute to the improvement and sustainability of public education. These changes seem necessary to ensure educators' preparation is grounded in research as a foundation for lasting reform (Rust, 2010).

In this light, I conducted a study to explore the presence and effectiveness of training and professional development practices framed by the four critical areas discussed above in the literature synthesis. This problem of practice dissertation study surveyed teachers with highly varying experience levels from five districts in the Pacific Northwest on their perceptions and experiences during teacher preparation and subsequent classroom teaching. A follow-up interview with a long-time teacher more deeply explored themes extracted from survey data and

what these critical areas of practice might look like when implemented via quality teacher preparation programs and teacher-driven professional development. In the section that follows, I describe the methods used, followed by empirical results and discussion of the importance and implications for practice and future research.

CHAPTER II

METHODS

Case studies explore the relations inherent within a network of individuals (Plano Clark & Creswell, 2015). This case study investigated the effectiveness of teacher training and professional development in enhancing pedagogical skills as perceived by public school teachers. More specifically, this research employed an exploratory case study focusing on teachers' journey from pre-service to early educator to more experienced professional to uncover insights and understandings of their overall experiences and they seek to bolster their knowledge of critical teaching skills necessary to support student learning.

Through a qualitative approach, I sought to better understand teachers' perspectives on pre-service training and professional development, including their voice in its design and implementation, as they transitioned out of pre-service and into and through the teaching profession. By employing a survey and a follow-up interview, I sought to illuminate the complexities of teacher training and development, exploring perceptions around clinical teaching and classroom opportunities, culturally responsive teaching, incorporating technology and 21st-century skills, and collaboration and mentorship during a teacher's early stages of their career. The exploratory nature of the study allowed me to generate hypotheses, identify patterns, and gain deeper insights into the unique challenges and opportunities faced by novice teacher training and development as they embark on their journey toward becoming effective educators and, by proxy, to draw inferences around the perceived effectiveness in the four areas identified in the literature as important to teacher preparation.

Research Questions

The goal of the study was to provide insights into the aspects of effective teacher training and professional development that aims to provide teachers with the knowledge and skills necessary for successful classroom teaching. I sought to answer the following research questions:

1. How do teachers perceive the effectiveness and quality of the four critical areas in their teacher preparation programs?
2. What elements do teachers identify as essential in teacher training and professional development based on their perceptions and experiences?

As a recent district superintendent, I aim to identify gaps in practice and undeveloped areas in these programs. From the point of view of conducting dissertation research focused on addressing a problem of practice, I considered an overarching question, "What supports are currently lacking for educators in our district?", and thus, sought to better understand how we can better support teachers' development and success both generally across the field, and more specifically within my educational context. Ideally, this research will aid districts in designing and implementing more effective training and professional development strategies in active partnership with teachers to identify areas of need, support the development of targeted knowledge and skillsets, and enhance the effectiveness of teaching practices. Ultimately, the information gathered through this study may contribute to ongoing refinement of teacher training and professional development, ensuring they more strongly align with the evolving self-reported needs of teacher educators.

Researcher Positionality Statement

I have been a school and district administrator for over 18 years, and most recently a Superintendent at a small rural district. Over my career in education, I have had the privilege to

serve in various other educator and leadership roles, including as a classroom teacher, TOSA (teacher on special assignment), athletic director, assistant principal, principal, district career and technical specialist, AVID district director, and superintendent. Along with these roles, I currently serve in state-level leadership roles as the Oregon Administrative School Executive (OASE) executive committee as the President-Elect and on the Oregon School Athletic Association (OSAA) executive governing board.

I am a white male educator, and my educational and cultural background is very similar to those who will make up my study participants. As a superintendent, I believe we must change how we prepare our teachers for today's classrooms. I faced significant challenges during my initial teaching experience, challenges which I believe were due, in part, to a lack of mentorship and collaboration in my own teacher training and development. I was left to navigate the complexities of teaching independently, as my assigned mentor teacher was on medical leave for four months. This situation forced me to plan lessons and resolve classroom issues independently, without the guidance of an experienced educator. Additionally, my university field supervisor provided minimal oversight, checking in with me only once or twice a month. I did not seek further assistance, assuming that my experiences were typical. This assumption led me to manage my practicum mainly independently, a daunting task for any beginning teacher.

These personal experiences have profoundly influenced how I support first-year and student teachers in the districts where I served as an administrator for 19 years and now as a superintendent. I strive to ensure that they receive the mentorship and collaborative opportunities I lacked, recognizing these elements have a critical role in fostering educator confidence and competence. By actively shaping these support systems, I aim to enhance their teaching effectiveness and overall job satisfaction, and thus, improve educational outcomes in the district.

My experiences led to my view that we must adjust how we prepare teacher candidates and how we recruit and retain them for the workforce. My assumptions and beliefs around the need for systematic change in our teacher preparation programs are predicated on my own experiences as well as what I see as current trends in the public-school workforce across our state and nation. The difficulty I have witnessed in hiring practices and supporting and retaining quality teachers reveals a bias that I need to be aware of and work to mitigate in my study.

In the context of my background in education, I hope that information drawn from the survey and interview of teachers will help uncover patterns and themes around the perceived effectiveness of the teacher preparation and professional development. Ideally, results from this study will lead to a more responsive and dynamic support framework by integrating educators' voice in the design, implementation, and ongoing follow-up of mentoring and professional development. This framework will not only assist in delivering targeted supports but may also facilitate continuous improvement and adaptation of teacher training and professional development. This proactive approach aims to equip our educators with the necessary voice, skills, and knowledge to thrive and contribute effectively to our learning community.

In addition to these experiences, I acknowledge that my dual perspective as a former teacher and long-serving administrator may introduce personal bias in interpreting and prioritizing findings. My firsthand observations of educators' challenges—particularly in mentorship, clinical training, and ongoing professional learning—could lead me to focus more on shortcomings than successes. This tendency toward confirmation bias, especially in areas where I have personally sought to enhance my leadership skills, is something I have actively worked to mitigate. I have made a conscious effort to remain open to the full range of participant

responses, including those that reflect satisfaction with their preparation. Recognizing and reflecting on this balance ensures an honest and equitable analysis.

Study Setting

This dissertation study will be conducted in five Oregon public school districts labeled A, B, C, D, and E for confidentiality. The teacher participants will come from these five school districts. Table 1 shows the demographic composition of each participating school district (Oregon Department of Education, 2023; U.S. Census Bureau, 2020).

Table 1

Demographics for Participating Oregon School Districts

Demographic Characteristic	Dist. A		Dist. B		Dist. C		Dist. D		Dist. E	
	n	% total	*n*	% total	*n*	% total	*n*	% total	*n*	% total
Students	5,576	48	2,557	22	1,385	12	1,585	14	509	4
Teachers	349	48	156	22	86	12	101	14	32	4
Sex	*n*	% total	*n*	% total	*n*	% total	*n*	% total	*n*	% total
Female	2,788	50	1,279	50	693	50	793	50	255	50
Male	2,788	50	1,277	50	691	50	791	50	254	50
Race/Ethnicity	% Stud	% Teach	% Stud	% Teach	% Stud	% Teach	% Stud	% Teach	% Stud	% Teach
Asian	1	1	2	3	<1	0	1	1	<1	0
Black	1	0	1	0	<1	2	<1	0	<1	0
Hispanic	12	5	14	6	72	19	10	2	26	8
Am Indian/AK Native	1	1	1	2	1	0,0	<1	0	1	0
Multi-Ethnic	7	3	10	2	1	0	7	2	8	3
Pacific Islander	<1	0	<1	0	<1	0	<1	1	<1	0
White	77	91	73	89	24	79	82	95	65	89
Disability Status	*n*	% total	*n*	% total	*n*	% total	*n*	% total	*n*	% total
Non-disability	4,795	86	2,147	84	1,233	89	1,363	86.0	448	88.0
Disability	781	14	410	16	152	11	222	14.0	61	12.0
Economic Status	*n*	% total	*n*	% total	*n*	% total	*n*	% total	*n*	% total
Not Economically Disadv	335	6	1,713	67	55	4	1,094	69	20	4
Economically Disadv	5,241	94	844	33	1,330	>95	491	31	489	>95
English Proficiency Status	*n*	% total	*n*	% total	*n*	% total	*n*	% total	*n*	% total
Not Limited English Prof	5,298	95	2,403	94	637	46	1,489	94	433	85
Limited English Prof	278	5	154	6	748	54	96	6	76	15

Note. Percent (%) totals for students and teachers at the top of the table are the % of students and teachers from the total sample.
% Stud = % Students; % Teach = % Teachers.

The demographic data from the five school districts provides an overview of student and teacher composition during the 2022-2023 school year. Collectively, these districts serve 11,612 students and employ 724 teachers. The racial and ethnic composition of the student population is diverse, with 0.6% American Indian/Alaska Native, 1.1% Asian, 0.7% Black/African American, 23.2% Hispanic/Latino, 5.4% Multiracial, less than 1% Native Hawaiian/Pacific Islander, and 68.1% White. The teacher demographics indicate that 0.7% identify as American Indian/Alaska Native, 1.2% as Asian, 0.3% as Black/African American, 8.0% as Hispanic/Latino, 2.0% as Multiracial, 0.4% as Native Hawaiian/Pacific Islander, and 87.4% as White. In terms of disability status, 13% of students have disabilities, while the remaining 87% do not. Economically, a significant portion of the student body—71.8%—is economically disadvantaged, leaving 28.2% not economically disadvantaged. Lastly, 90.6% of students are not limited in English proficiency, with 9.4% identified as Limited English Proficient. Collectively, these data highlight the demographic diversity and potentially the varied challenges present across these districts, particularly regarding economic disadvantage and the need for culturally responsive education practices and teacher preparation.

Participant Recruitment and Analytic Sample

The first phase of the study involved surveying teachers across the five Oregon school districts who volunteered to participate in the study to gather information about their teacher training and related experiences. As the primary researcher, I shared a formal invitation with the superintendents of the five participating Oregon school districts, including information about participating in the study and a secure link to access the Qualtrics teacher survey (see Appendix A). The superintendents emailed the study invitation and survey link to all classroom teachers in their district.

Across the five school districts, 65 teacher respondents accessed the survey through email invitation. Of these, 24 answered only the first item and were removed from the analytic sample, leaving $n = 41$ participants who completed approximately all survey questions and make up the analytic sample for the survey results in the study (three teachers in the analytic sample skipped or refused to answer a small number of selected-response questions). Teacher respondents' ages ranged from 23 to 59 years ($M = 49$ years), Teaching experience varied between 1 and 38 years ($M = 14$ years). Of those comprising the analytic sample, 68% ($n = 28$) identified as female, 27% ($n = 11$) identified as male, and 5% ($n = 2$) preferred not to disclose their gender. Teacher respondents taught at various levels, with 29% ($n = 12$) in elementary school, 24% ($n = 10$) in middle school, 40% ($n = 16$) in high school, and 7% ($n = 3$) teaching combined grade levels. Regarding educational attainment, 76% ($n = 31$) of teacher respondents held a master's degree, followed by 22% ($n = 9$) having a bachelor's degree, and 2% ($n = 1$) holding a doctoral degree. In terms of teacher preparation, 88% ($n = 36$) completed a traditional university-based program, while 7% ($n = 3$) pursued alternative certification, and 5% ($n = 2$) engaged in self-directed study.

Of the 41 teachers who completed the survey, four initially expressed willingness to participate in a follow-up focus group. Given the limited response, a single focus group was planned. These four teachers were contacted by email to schedule the focus group; however, only one of the four teachers, responded and formally agreed to participate in the follow-up. Thus, the planned focus group was revised to a virtual one-on-one interview with a single teacher, with myself acting as facilitator and my UO faculty advisor scribing notes. Given limited participation required a one-on-one interview with a single teacher, I could not use maximum variation sampling as originally proposed.

The participant in the interview was a middle school teacher (Grades 7-8) specializing in math and social sciences. The teacher identified as female and began teaching in 2001, with prior experience as an educator in camps and choirs. Prior to teaching in her current district in northwest Oregon, where she has taught for 7 years, the teacher taught for 16 years in a large suburban school district west of Portland. The teacher relayed that she is experienced in teaching various subjects, including math, algebra, world geography, U.S. history, government, and economics. Since the COVID-19 pandemic, she indicated that she had shifted back to teaching math to help address pandemic-related learning losses. She holds master's and bachelor's degrees in education, completed an 11-month teacher preparation program at Willamette University in Salem, Oregon, that emphasized immersive classroom experience, and has an English for Speakers of Other Languages (ESOL) endorsement and has experience working with students identified as talented and gifted (TAG). The teacher indicated that she spent a full year as a classroom teacher on a Preliminary Oregon Teaching License while attending evening classes to complete teacher preparation programming.

Instruments and Data Collection Procedures

Prior to conducting my research, I submitted the required documentation to the University of Oregon Institutional Review Board (IRB). The IRB approved the recruiting and research plan, consent forms, and working versions of the survey and focus group scripts on September 20, 2024. The survey included questions regarding the structure, content, and support provided during pre-service teacher preparation and professional development while formally serving as a classroom teacher and concluded with a question asking their willingness to participate in a follow-up focus group. The survey script and questions are listed in Appendix A. Data collection occurred via a survey and an interview. The survey phase collected data from a pool of

approximately 724 teachers across five Oregon school districts administered securely and anonymously through the UO subscription to Qualtrics. This survey consisted of eight demographic questions and 35 questions focused on teacher perceptions and experiences using four-point Likert scales, and three open-ended response questions. The demographic questions gathered essential background information on the teacher participants and provided context for analyzing survey responses, with results from these questions reported for the analytic sample in the section entitled Participant Recruitment and Analytic Sample. The was designed to take approximately 10 to 15 minutes to complete in Qualtrics, and on average took teachers in the analytic sample just over 15 minutes.

The script and questions for the interview phase of the study are listed in Appendix B. The interview was conducted virtually on February 17, 2025, and began with introductions. The participating teacher was asked to sign a consent form, and permission was obtained to record and transcribe using Zoom. I facilitated the interview and an additional, independent notetaker, my UO faculty advisor, was present. The interview consisted of six structured, open-ended questions, each accompanied by two to four follow-up prompts, designed to elicit detailed responses across four key focus areas: clinical teaching and classroom opportunities, culturally responsive teaching, technology integration and 21st-century skills, and collaboration and mentorship opportunities. These questions addressed participants' experiences with professional development design and implementation, feedback and ongoing support, teacher voice and collaboration in planning, and the influence of administrative leadership. The protocol facilitated a comprehensive understanding of how teacher preparation programs and ongoing professional development shaped participants' instructional practices and professional growth. The interview lasted approximately 70 minutes. Recording via Zoom, creating a transcript, and using an

independent notetaker guaranteed accurate capture of interview details, a crucial step for the subsequent analysis and application of the data to enhance teacher preparation programs.

This interviewed teacher provided perspective and insights on the immediate applicability and perceived gaps in teacher training and effective professional development experiences. These insights were critical for better understanding teachers' challenges and support needs as novice teachers transition from training programs into real-world teaching and how targeted professional development that incorporates elements like teacher voice, detailed and specified plans and goals, ongoing support, and follow-through by administrators, and opportunities to collaborate with mentors and colleagues has potential for improving the skills of classroom teachers. A timeline, including the complete dissertation process, is shown in Appendix C

Data Analysis

An anonymous, mixed-methods survey sent to teachers across five school districts was first used to gather data on teacher perceptions of the quality and relevance of pre-service preparation and professional development training. The survey link was distributed to all classroom teachers via district superintendents, who were asked to resend the request twice to promote participation. The survey included selected-response items and open-ended questions to capture quantitative trends and qualitative insights relevant to the study's research questions.

Quantitative data from selected-response items were analyzed using descriptive statistics**,** including frequency counts and percentages**.** Each item was scored using a four-point Likert scale, described in detail by survey section in the Results section, depending on participants' responses across multiple indicators. These descriptive statistics provided a foundational understanding of participants' overall perceptions and highlighted areas for deeper inquiry.

Qualitative responses to the open-ended survey were thematically analyzed to identify commonalities and divergent views. Emergent themes aided design of the focus group protocol and generated guiding questions for the qualitative interview phase of the study. Despite multiple distribution efforts, only four participants expressed interest in the focus group opportunity, and ultimately, only one participant responded to email inquiries attempting to schedule the focus groups. As a result, the focus group transitioned into a semi-structured interview, offering a more personalized, yet valuable, opportunity to gather narrative data to supplement survey responses.

Given the limited participation in the qualitative portion, the final analysis relied primarily on the survey data, with the qualitative interview serving providing supplemental insights. To analyze the qualitative data—including the open-ended survey responses**,** the (raw) interview transcript, interview field notes, and interview notes collected independently by doctoral advisor**—**I employed a six-phase thematic analysis process adapted from Braun and Clarke (2006)**.** Thematic analysis was chosen for its methodological flexibility and suitability for identifying patterned meaning across varied qualitative data sources. The six stages were implemented as followed:

1. **Familiarization with the Data**: I began by reading and rereading all qualitative responses, including the open-ended survey items and the full interview transcript. I also reviewed the field notes I took during and after the interview alongside those of my doctoral advisor. These materials were initially organized using SPSS to facilitate the identification of notable ideas and patterns.
2. **Generating Initial Codes**: I independently coded narrative data from all sources, tagging meaningful textual segments relevant to the study's research questions. This inductive coding process allowed themes to emerge from the data rather than being pre-imposed.

3. **Searching for Themes**: I grouped similar codes to identify broader patterns after the initial coding. To further support this process, I uploaded the interview transcript into NotebookLM (NotebookLM, 2025; https://notebooklm.google.com/), a large language model designed to extract thematic insights and identify direct quotes. I prompted the system to generate potential themes and supporting evidence directly from survey and interview responses. These outputs were then compared to the themes I developed independently and refined.
4. **Reviewing Themes and Conducting a Member Check**: To enhance the validity and credibility of the findings, I engaged in a collaborative member-checking process with an independent notetaker. We compared my coded themes and field notes to their transcript annotations and the suggestions generated by NotebookLM (2025). This triangulated approach supported a rigorous verification of emerging themes and response patterns and reflected a co-constructive research stance (Harper & Cole, 2012).
5. **Defining and Naming Themes**: In this stage, I integrated and refined the themes to ensure each captured a meaningful aspect of the data. I reviewed and sharpened definitions to emphasize how each theme related specifically to the study's research questions. As Braun and Clarke (2006) explained, a theme "captures something important about the data about a research question[s] and represents some level of patterned response or meaning within the data set" (p. 82).
6. **Producing the Analytic Report**: The final phase involved synthesizing findings from the quantitative survey results, open-ended responses, and interview transcripts. Representative quotes illustrated the major themes, and patterns were analyzed for both

convergence and divergence across data sources. The completed report will be shared with the interview participant as appropriate for transparency and ethical consideration.

Given the constraints on qualitative participation, this study employed methodological triangulation to strengthen credibility and trustworthiness. By integrating multiple data sources—survey responses, open-ended questions, interview data, and field notes—I aimed to construct a more comprehensive and nuanced understanding of educators' perceptions and experiences. As Fontana and Frey (2005) noted, "The more methods we use to study them, the better our chances to gain some understanding of how they construct their lives and the stories they tell us about them" (p. 373).

CHAPTER III

RESULTS

The results for this study are presented first for selected-response teacher survey questions and second for open-ended teacher survey questions in combination with the teacher interview while being supplemented by relevant selected-response survey responses. The goal of this organization is to provide a time-ordered presentation of results, while also integrating teacher perceptions and reflections from open-ended survey and interview questioning in a logical and coherent manner.

Results for Selected-Response Survey Responses

Results are first presented as frequency counts and percentages for selected-response survey questions in the order teachers answered the questions in the survey (see Appendix A).

Perceptions of Clinical Teaching Practicum

Overall, across the five questions in the Clinical Teaching Practicum section of the survey, 85% (n = 175) of teachers' responses were either "Somewhat Satisfied" or "Very Satisfied," whereas 15% (n = 30) indicated "Somewhat Unsatisfied" or "Very Unsatisfied" (see Table 2). These results suggest a large majority of respondents had a positive experience regarding opportunities for observation, teaching practice, and feedback during their teacher preparation practicum. These results suggest that while most respondents felt supported and prepared based on opportunities to observe and practice teaching and through the feedback, they received during their clinical teaching practicum, a smaller group experienced dissatisfaction. For example, in the first and second questions in this section, 2 (5%) and 5 (12%) of the 41 teacher respondents indicated dissatisfaction with the frequency and quality of feedback they received during their clinical teaching practicum experience, respectively, whereas 15 (37%)

indicated they were dissatisfied with the opportunities to observe different classrooms (see Table 2). This may highlight areas for improvement, such as increasing the quality and frequency of feedback for certain individuals and/or teacher training programs, expanding (diversifying) the opportunities for classroom observation, and refining the structure of teaching practice sessions to ensure a more comprehensive learning experience for all pre-service teachers.

Table 2
Clinical Teaching Practicum

Survey Question	Very Unsatisfied	Somewhat Unsatisfied	Somewhat Satisfied	Very Satisfied
How satisfied are you with the opportunities you had to observe *different classrooms* during your clinical teaching practicum experience?	1	***14***	13	13
How satisfied are you with the opportunities you had to practice your teaching during clinical teaching practicum experience?	1	3	13	***24***
How satisfied are you with the frequency of feedback you received during your clinical teaching practicum experience?	1	1	***20***	19
How satisfied are you with the quality of feedback you received during your clinical teaching practicum experience?	1	4	***20***	16
Overall, how satisfied are you with your overall clinical teaching practicum experience?	2	2	18	***19***

Note. QB1 - *Please think about your Clinical Teaching Practicum experience* – selected-response item – all respondents. Median responses on the 4-point ordinal scale are underlined-bolded-italicized.

Perceptions of Culturally Responsive Teaching

Overall, across the four questions in the Culturally Responsive Teaching section of the survey, 73% (n = 116) of teachers' responses were reported as "Somewhat Satisfied" or "Very Satisfied," whereas 27% (n = 44) of responses indicated "Somewhat Unsatisfied" or "Very Unsatisfied" (see Table 3). These results suggest that after becoming public school teachers, most respondents feel satisfied with their awareness of culturally responsive teaching and their ability to implement such strategies in their classrooms.

However, the responses also indicated dissatisfaction, particularly in teachers' knowledge of instructional materials and strategies, where a notable portion of respondents expressed dissatisfaction. For example, in the second and third questions in this section, 14 (34%) and 13 (32%) of the 41 teacher respondents indicated dissatisfaction with their knowledge of responsive instructional materials and instructional strategies, respectively, particularly given 12 teachers (29%) also indicated dissatisfaction with their overall ability to implement culturally responsive teaching in their classrooms (see Table 3). These results indicate a potential need for more targeted professional development and greater access to culturally responsive instructional resources to better equip educators, who cited a need for growing their knowledge for understanding and implementing inclusive teaching practices.

Table 3
Culturally Responsive Teaching

Survey Question	Very Unsatisfied	Somewhat Unsatisfied	Somewhat Satisfied	Very Satisfied
How satisfied are you with your *awareness* of the importance of Culturally Responsive Teaching?	1	4	***19***	16
How satisfied are you with your knowledge of instruction materials for Culturally Responsive Teaching?	4	10	***18***	8
How satisfied are you with your *knowledge of instructional strategies for* implementing Culturally Responsive Teaching in our classroom?	3	10	***21***	6
How satisfied are you with your overall ability to effectively implement Culturally Responsive Teaching in your classroom?	3	9	***23***	5

Note. QB2 - *Please consider the entirety of your skills in Culturally Responsive Teaching* – selected-response item – all respondents. Median responses on the 4-point ordinal scale are underlined-bolded-italicized.

Perceptions of Incorporating Technology in Teaching

Overall, across the four questions in the Incorporating Technology in Teaching section of the survey, 78% (n = 125) of teachers' responses indicated either "Somewhat Satisfied" or "Very Satisfied," whereas 22% (n = 35) of teachers' responses indicated they were "Somewhat Unsatisfied" or "Very Unsatisfied" (see Table 4). These results suggest most participants feel confident in their knowledge of technology in teaching and their ability to implement it effectively in their classrooms.

However, a smaller yet significant portion of respondents expressed dissatisfaction with their knowledge of technology materials and associated instructional strategies. For example, in the second and third questions in this section, 8 (20%) and 10 (25%) of the 41 teacher respondents indicated dissatisfaction with their knowledge of technology materials and associated programs to use during their teaching and around different instructional strategies that use technology during their teaching, respectively (see Table 4). These results indicate a potential need for additional professional development training and support resources to help teachers integrate technology more effectively into their classroom teaching and ensure they have access to appropriate tools and related instructional approaches, particularly given that 10 teachers (25%) likewise indicated dissatisfaction with their overall ability to effectively implement technology into their classroom teaching.

Table 4

Incorporating Technology in Your Teaching

Survey Question	Very Unsatisfied	Somewhat Unsatisfied	Somewhat Satisfied	Very Satisfied
How satisfied are you with your *awareness* of the importance of using technology into your teaching?	3	4	16	***17***
How satisfied are you with your knowledge of technology materials/programs to use in your teaching?	3	5	***21***	11
How satisfied are you with your *knowledge of instructional strategies* using technology in your teaching?	3	7	***20***	10
How satisfied are you with your overall ability to effectively implement technology into your teaching?	2	8	***18***	12

Note. QB3 - *Please consider the entirety of your skills in Incorporating Technology in your teaching* – selected-response item – all respondents. Median responses on the 4-point ordinal scale are underlined-bolded-italicized.

Perceptions of Incorporating 21st Century Teaching Skills

Overall, across the four questions in the Incorporating 21st Century Teaching Skills section of the survey, 73% (n = 114) of teachers' responses indicated either "Somewhat Satisfied" or "Very Satisfied," whereas 23% (n = 42) of responses indicated "Somewhat Unsatisfied" or "Very Unsatisfied" (see Table 5). These results suggest that most participants feel confident in their awareness and ability to incorporate critical thinking, creativity, collaboration, and communication into their classroom teaching.

However, responses also highlight some educators' struggle with accessing instructional materials and strategies to implement them effectively. For example, in the second and third questions, 13 (33%) and 11 (28%) of the 39 respondents indicated dissatisfaction with their knowledge of instructional materials to effectively implement 21st-century skills during teaching and their knowledge of associated instructional strategies, respectively (see Table 5). Similarly, 10 teachers (26%) indicated dissatisfaction with their ability to effectively implement skills like

critical thinking, creativity, collaboration, and communication into their teaching. These results appear to indicate a need for further supports to ensure that all teachers have the necessary resources and training to apply and foster different aspects of 21st-century teaching and learning.

Table 5
Incorporating 21st Century Teaching Skills

Survey Question	Very Unsatisfied	Somewhat Unsatisfied	Somewhat Satisfied	Very Satisfied
How satisfied are you with your *awareness* of incorporating 21st Century Teaching Skills such as critical thinking, creativity, collaboration, and communication into your teaching?	2	6	***19***	12
How satisfied are you with your knowledge of instructional materials to effectively implement 21st Century Teaching Skills into your teaching?	2	11	***21***	5
How satisfied are you with your *knowledge of instructional strategies* implementing 21st Century Skills in your teaching?	3	8	***20***	8
How satisfied are you with your overall ability to implement 21st Century Teaching Skills into your teaching?	3	7	***21***	8

Note. QB4 - *Please consider the entirety of your skills in Incorporating 21st Century Teaching Skills such as critical thinking, creativity, collaboration, and communication* – selected-response item – all respondents. Median responses on the 4-point ordinal scale are underlined-bolded-italicized.

Perceptions of Mentorship and Collaboration

Overall, across the seven questions in the Mentorship and Collaboration section, 61% (n = 165) of teachers' responses indicated "Somewhat Satisfied" or "Very Satisfied," whereas 39% (n = 106) indicated "Somewhat Unsatisfied" or "Very Unsatisfied" (see Table 6). The relatively high number of dissatisfied teachers indicates potential gaps in the amount of time and quality of feedback during mentorship, and the opportunities and amount of time for collaboration with fellow teachers. For example, in the second, third, fourth, and fifth questions, 21 (54%), 17 (45%), 18 (47%), and 20 (53%) of the 39 teacher respondents indicated dissatisfaction with the quality of feedback received from a mentor around teaching, the opportunities to collaborate with

colleagues, and the amount of time to collaborate with colleagues around teaching, respectively (see Table 6). Together, these results suggest that while most participants feel positive about their mentorship experiences and opportunities for collaboration, a substantial near or actual majority, experience dissatisfaction—especially with the amount of time spent with and quality of feedback from mentors and the opportunities and amount of time spent collaborating. Based on the level of dissatisfaction expressed, addressing these concerns by incorporating longer-lasting and feedback-driven mentorship into professional development, increasing collaboration time amongst teachers, and ensuring higher-quality, ongoing feedback amongst colleagues could enhance teacher satisfaction and professional growth in areas of mentorship and collaboration.

Table 6
Mentorship and Collaboration

Survey Question	Very Unsatisfied	Somewhat Unsatisfied	Somewhat Satisfied	Very Satisfied
How satisfied are you with the mentorship you have received around teaching strategies?	1	12	***14***	11
How satisfied are you with the amount of time you have had to meet with a mentor around teaching?	5	***16***	7	11
How satisfied are you with the quality of feedback you have received from a mentor around teaching?	2	***15***	10	12
How satisfied are you with the opportunities you have had to collaborate with colleagues (e.g., other teachers, administrators) around teaching?	4	***14***	11	10
How satisfied are you with the amount of time you have had to collaborate with colleagues around teaching?	6	***14***	12	7
How satisfied are you with the quality of your relationship with colleagues you collaborate with around teaching?	0	6	***19***	14
Overall, how satisfied are you with the collaboration in which you participate during your teaching?	2	9	***18***	9

Note. SB5 – *Please consider the entirely of your experience with Mentorship and Collaboration* – selected-response item – all respondents. Median responses on the 4-point ordinal scale are underlined-bolded-italicized.

Perceptions of Professional Development and Learning

Overall, across the initial four questions in the Professional Development and Learning survey (SQ43-46), 47% (n = 67) of responses indicated either "Somewhat Satisfied" or "Very Satisfied," whereas 53% (n = 77) of responses indicated "Somewhat Unsatisfied" or "Very Unsatisfied" (see Table 7). These results suggest that most teachers are dissatisfied with the professional development opportunities provided by their district or school administrator.

For SQ47, which had a unique Likert scale, as shown at the bottom of Table 7, 42% (n = 15) of teachers reported that the professional development they receive is either "Mostly Useful" or "Very Useful." On the other hand, 58% (n = 21) indicated that professional development is "Not Useful at All" or only "Somewhat Useful." These results suggest that most participants do not find their professional development experiences particularly useful to their teaching practice. The higher level of dissatisfaction indicates a need for more relevant, engaging, and practical professional development opportunities that align with educators' needs.

The relatively higher dissatisfaction suggests concerns regarding the amount of time allocated, the quality of professional development, the relevance of learning topics, and the level of ownership teachers have over their professional growth. For example, in the first and third questions in this section, 13 (33%) and 18 (47%) of the 36 teacher respondents indicated dissatisfaction with the amount of time they spend participating in professional development with their district/school administrator and the learning topics provided through their district/school administrator, respectively (see Table 7). Also notable, in the second, fourth, and fifth questions, 24 (75%), 22 (55%), and 21 (58%) of respondents expressed dissatisfaction with the quality of time spent in professional development, the amount of ownership they have over their professional development, and whether the professional development they receive is worth

their time, respectively. These results appear particularly relevant to the design and implementation of professional development for teachers as the level of dissatisfaction is meaningfully higher compared to the overall experience of these teachers during pre-service practicum. Addressing these areas through more personalized and meaningful professional development experiences could enhance teacher engagement and effectiveness.

Table 7

Professional Development and Learning for SQ43-47

Survey Question	Very Unsatisfied	Somewhat Unsatisfied	Somewhat Satisfied	Very Satisfied
How satisfied are you with the amount of time you spend participating in professional development with your district/school administrator?	3	10	***17***	6
How satisfied are you with the quality of time you spend participating in professional development with your district/school administrator?	7	***17***	9	3
How satisfied are you with the professional development learning topics provided through your district/school administrator?	7	11	***16***	2
How satisfied are you with the amount of ownership you have over your professional development with your district/school administrator?	10	***12***	8	6
Survey Question	Not Useful at All	Somewhat Useful	Mostly Useful	Very Useful
Is the professional development you receive from your district/school administrator is worth your time?	4	***17***	11	4

Note. SB5 – *Please think about your experience and views on Professional Development and Learning* – selected-response item – all respondents. Median responses on the 4-point ordinal scale are underlined-bolded-italicized.

Overall, across the remaining five questions in the Professional Development and Learning survey (SQ48-52), which focused on the usefulness and appropriateness of professional development, 35% (n = 63) of teachers' responses indicated that the professional development received is either "Mostly" or "Always" useful and appropriate (see Table 8). In comparison, 65% (n = 117) of responses indicated that professional development is "Never" or only "Sometimes" useful and appropriate. These results show significant dissatisfaction around the relevance and effectiveness of professional development opportunities that districts and/or school administrators provide.

The relatively high number of respondents expressing dissatisfaction suggests that professional development offerings may not adequately address teachers' specific/individualized learning needs, provide sufficient depth of content, or offer practical strategies for initiating and sustaining change in teaching practices. For example, in the first and third questions in this section, 22 (61%) and 22 (61%) of the 36 teacher respondents indicated professional development is "Sometimes" or "Never" worth their time and has the appropriate depth of content, respectively (see Table 8). Even further, in the second, fourth, and fifth questions, 26 (72%), 22 (61%), and 25 (69%) of respondents, a clear majority, expressed dissatisfaction with how professional development addresses their personal learning needs, and whether it provides the information needed for initiating change in their teaching practices and for sustaining changes they implement in their teaching, respectively—indicating that professional development only "Sometimes" or "Never" addressed these critical goals. These findings align with open-ended and interview results, described in detail in the next section of this dissertation, which highlight concerns regarding the relevance, depth, and long-term usefulness of professional development.

Table 8

Professional Development and Learning for SQ48-52.

Survey Question	Never	Sometimes	Mostly	Always
Is the professional development you receive from your district/school administrator is *worth your time*?	4	***18***	14	0
Does the professional development you receive from your district/school administrator address your learning needs?	9	***17***	8	2
Does the professional development you receive from your district/school administrator have the appropriate depth of content?	3	***19***	13	1
Does the professional development you receive from your district/school administrator provide you with the information needed for initiating change in your teaching?	4	***18***	13	1
Does the professional development you receive from your district/school administrator provide you with the information needed for sustaining changes you implement in your teaching?	4	***21***	9	2

Note. SB5 – *Please think about your experience and views on Professional Development and Learning* – selected-response item. Modal responses on the 4-point ordinal scale are underlined-bolded-italicized.

Results for Open-Ended Survey and Interview Responses

In this section, results are presented as four themes drawn from the intersection of open-ended survey and interview responses (see Appendix A and B for questions). Representative quotes, presented as teachers gave them, are presented as empirical examples of findings within each theme, and results from selected-response survey are integrated where relevant.

Structured and Ongoing Professional Development

The survey and interview data findings highlight the importance of structured and sustained professional development for educators. Teachers emphasized that professional development must go beyond isolated, one-time events, including follow-up sessions and opportunities for continued engagement. Most survey respondents (53%) reported dissatisfaction with professional development opportunities, citing a lack of relevance to their learning needs, depth of content, as well as continuity for initiating and sustaining desired changes in practices

and outcomes (see Table 8). Multiple teachers in open-ended survey responses expressed frustration with “one-shot” professional development sessions, which they felt lacked clear purpose and long-term impact. The interview participant, for example, noted, “If you want me to incorporate a growth mindset into my instruction, do not give it to me once and ask me to read the book. Come back to it.” (Interview, Speaker 2). She also explained, “We forget that teachers are still students” (Interview, Speaker 2). These comments illustrate that just as students need reinforcement and practice to retain new knowledge, and teachers require structured and sustained training support to integrate professional development concepts effectively into their instructional practices.

Beyond the need for sustained engagement, participants also emphasized the importance of clearly articulated professional development goals and objectives. Without well-defined goals, teachers expressed difficulty in understanding the reasoning behind and the means for applying what they learned during professional development trainings into their classrooms. In this vein, the interviewed teacher stated, “If I do not have a clear plan or understanding of what I need to be learning from you, am I truly going to integrate that information the way you want me to?” (Interview, Speaker 2). This aligns with open-ended survey responses indicating teachers value structured pre-and post-surveys, administrative follow-up, and time to observe and implement newly learned strategies. Relatedly, as shown in the selected-response portion of the survey, only 42% of respondents found professional development to be “Mostly Useful” or “Very Useful,” while 58% found it to be “Not Useful at All” or only “Somewhat Useful” (Table 7). Likewise, several open-ended survey responses reinforced these concerns, with teachers emphasizing the importance of clear planning around sustained engagement of administrators and teachers. One teacher wrote, “A clear plan to implement the professional development or build on. Often, it is

one-and-done, and we never hear about the topic again. It was just shared to check a box." Another teacher echoed that professional development content is effective when objectives are strongly aligned with classrooms needs indicating training is relevant when, "I can immediately use it in my classroom" (Open-Ended Survey Responses). Addressing these concerns by ensuring professional development initiatives have clear learning objectives, structured follow-up, and opportunities for ongoing application would improve teacher satisfaction and instructional effectiveness according to teacher participants.

Administrative Leadership and Support

A second theme emerging from the data is the significant role that administrative leadership plays in supporting and reinforcing professional development. Teachers indicated that administrators who model instructional strategies, communicate clear objectives, and provide structured and ongoing supports contribute to more effective professional development experiences. The interview participant noted, "When I saw them talking to students the way they wanted me to talk to students, that is when I bought in" (Interview, Speaker 2). Similarly, a survey respondent emphasized the importance of administrative follow-up, stating that "teachers need more than just an initial training session; they require ongoing guidance and check-ins to ensure implementation" (Open-Ended Survey Responses).

Survey responses revealed that teachers who felt supported by administrators were more likely to find professional development applicable, and thus, helpful. However, many educators expressed frustration with assigned scheduling conflicts and the limited time available for implementing professional development. The interviewed teacher explained, "We only get one chance to do it right, and we want to discuss student conversations. How can we help this kid? But if we are trying to do everything on our own, when do we have the time?" (Interview,

Speaker 2). The survey results support this concern, with 47% of respondents indicating they were “Somewhat Satisfied” or “Very Satisfied” with the amount of time spent on professional development. In comparison, 53% were “Somewhat Unsatisfied” or “Very Unsatisfied” (Table 8). Open-ended responses further reinforced this frustration. One teacher wrote, “I trust my administrators to choose professional development that will benefit the staff and students and not waste time on things that do not apply to either of those parties.” Another noted, “Admin and other teachers stick with choices, and it is frequently brought up—opportunities for follow-up matter” (Open-Ended Survey Responses). Overall, teachers indicated that administrators could enhance the effectiveness of professional development by ensuring teachers have the necessary time and resources to integrate new instructional strategies. Moreover, when administrators actively participate in professional development and model best practices, teachers indicated they are more likely to engage with, implement, and stick with the content of trainings meaningfully.

Importance of Mentorship and Collaboration Beyond Year One

Mentorship and collaboration emerged as another critical theme from the survey and interview data. Many educators emphasized the need for structured mentorship programs beyond the first year of teaching. The survey findings indicate that while 61% of respondents reported being “Somewhat Satisfied” or “Very Satisfied” with their mentorship experiences, 39% expressed dissatisfaction, often due to inconsistent mentor availability and limited time for collaboration (Table 7).

The interviewed teacher highlighted how long-term mentorship had positively impacted her professional growth. The participant reflected, “By my third year, my mentor told me, ‘You have wings, now fly.’” Without that, I would have been lost” (Interview, Speaker 2). Teachers echoed this sentiment, emphasizing that structured mentorship programs should provide mentors

with dedicated time and resources to support new teachers effectively. Open-ended survey responses also reinforced this, with one teacher stating, “Relationships are critically important. The need to feel valued and appreciated for the work one does.” Another emphasized “Analyzing what our students need and driving home how important it is to change for them” (Open-Ended Survey Responses). According to teacher respondents, schools prioritizing structured mentorship and collaborative opportunities may better support teachers’ professional growth, improving instructional practices and increasing teacher retention.

Teachers’ Voice in Professional Development Design

The final theme that emerged from the data is the need for increased teacher input and voice in designing and implementing professional development programs. Survey data revealed clear disconnects between what teachers think they need from professional development training and what they receive. For example, over half of respondents expressed they had little ownership over their professional development (Table 7) and nearly three-quarters of teachers perceived that professional development only “Sometimes” or “Never” addressed their personal learning needs (Table 8), indicating a clear divide between the training offered and teachers’ actual needs. Survey and the interview participants expressed frustration with the lack of teacher voice in professional development selection. For example, the interviewed teacher stated, “I do not feel like I have a voice in professional development because nobody knows what my voice is” (Interview, Speaker 2).

Emphasizing the importance of integrating their voice into the design and implementation of trainings, teachers emphasized the importance of professional development that is differentiated based on their experience level, subject area, and specific instructional needs. For example, the interviewed teacher participant noted the importance of combining teachers’ needs

with opportunities for collaboration saying, “Some of the best math PD I have had is where we all sat in a room together saying, ‘This is the problem I am having. How did you approach this problem?’” (Interview, Speaker 2). Similarly, multiple survey respondents highlighted that professional development should provide practical, immediately applicable strategies that align with their teaching responsibilities (Open-Ended Survey Responses). For example, a teacher underscored this need, with one teacher stating, “PD has to relate to what I am teaching, such as curriculum, teaching strategies, etc.” (Open-Ended Survey Responses). Another emphasized, “When we have input and time to collaborate versus mostly listening, PD is more effective” (Open-Ended Survey Responses). A clear majority of teachers perceived a lack of their own voice in the design and implementation of professional development and that this lack of input yields trainings that are less effective than they could be if teachers were more actively involved.

CHAPTER IV

DISCUSSION

This study investigated teachers' perceptions of their pre-service preparation and in-service learning in four crucial domains: clinical experience, culturally responsive pedagogy, technology and 21st-century skills, and mentorship/collaboration. A consistent theme emerged around the importance of ongoing professional development and the need for sustained administrative and collegial support I the early stages and throughout a teachers' careers. Data collected through a survey and an interview revealed a widespread consensus among educators about the critical nature of these domains; however, their actual experiences reflect inconsistent and often inadequate implementation across teacher preparation and professional development programming. Near and actual majorities of teachers surveyed expressed dissatisfaction with the ongoing support they receive (or not) through mentorship, feedback, and targeted professional development that intends to aid their growth as professionals within the classroom.

Many educators reported entering the classroom as early-career teachers with insufficient hands-on training, feeling overwhelmed and underprepared. Along these lines, one teacher expressed the disconnect in support and apt skill development when moving from pre-service to in-service stating, "I was in a classroom during my student teaching, but I was mostly observing. When I had to teach independently, I realized I did not know what to do if a student acted out or did not understand a lesson" (Interview, Speaker 2). These reflections align with Korthagen et al.'s (2006) critique of traditional teacher education, often isolating theory from authentic classroom practice. Korthagen et al. (2006) argued that teacher education must be reframed to promote more profound connections between theoretical learning and the lived experiences of actually teaching in the classroom. Similarly, Francis (2013) found that student teachers often

struggle to implement newly learned strategies without structured opportunities for application, reinforcing the importance of meaningful clinical experiences that segue into effective classroom teaching practices.

Teachers emphasized a crucial need for practical preparation in culturally responsive pedagogy. The interviewed educator stated, “We discussed diversity in theory, but I never had the opportunity to practice what it looks like in a classroom with students from diverse backgrounds” (Interview, Speaker 2). Darling-Hammond (2006) argued that equity-oriented preparation must include guided opportunities to teach diverse learners. Without this, candidates often turn to ineffective or deficit-based models after entering the classroom. Moreover, culturally responsive pedagogy should be incorporated into every aspect of preparation instead of being treated as a standalone module (Darling-Hammond, 2006). Völlinger and Supanc (2020) also highlighted the importance of instructional strategies—such as cooperative learning—that embrace learner diversity and foster social inclusion in heterogeneous classrooms.

Technology and 21st-century knowledge and instructional skills have emerged as important areas for ensuring essential elements of teacher preparation training and professional development. Participants reported insufficient exposure to the tools and frameworks required for contemporary teaching. One teacher participant remarked, “We had one course on technology, and it focused on using PowerPoint. That did not help me set up Google Classroom or use tools to engage students” (Open-Ended Survey Responses). This finding supports critiques by Laskova (2021), who argued that teacher education often fails to prepare future educators to critically and effectively integrate digital tools. While technology is frequently assumed to enhance learning, the pedagogical foundations for its use are often underdeveloped or overly simplistic. Kowalczuk-Walędziak et al. (2019) advocated for teacher education to equip future

teachers with digital literacy and instructional agility to meet the challenges of modern schools, classrooms, and post-secondary opportunities, emphasizing the importance of critical thinking, collaboration, and adaptability amongst teachers and students.

Additionally, mentorship emerged in this study as both a critical support and a persistent gap in the preparation and ongoing professional development of teachers. The interviewed educator described their transformative experience as a novice teacher working into early career teaching as follows: “My mentor was amazing. She helped me plan lessons and checked in every week. I would have quit without her” (Interview, Speaker 2). Others reported feelings of isolation, lack of feedback, and confusion about navigating their first year in the classroom. These findings resonate with Feiman-Nemser’s (2001a) model of “educative mentoring,” which advocates for mentoring relationships that prioritize inquiry, reflection, and continuous learning rather than merely providing logistical support or classroom management tips. Effective mentoring, as echoed by Kolman et al. (2017), requires a reciprocal approach where mentors act as co-learners and thought partners with novice teachers. However, mentorship is often left to chance, shaped by limited resources and unclear expectations, and ends after teachers’ first year in the classroom. Therefore, programs must cultivate structures that support sustained, reflective, and contextually responsive mentorship across the teacher development continuum.

Moreover, professional development was identified as a crucial element lacking in several areas for supporting teachers once they are in the classroom. The interviewed teacher, for example, mentioned that professional development fails to fulfill its purpose when designed without teacher voice or contextual relevance. More broadly, teacher participants in this study frequently characterized their professional development experiences as disjointed, irrelevant, and compliance driven—with nearly three-quarter of those surveys indicating that professional

development is misaligned with respect to their personal learning needs. Likewise, most teachers surveyed indicated they were unsatisfied with the quality of time spent and the amount of ownership they have in their professional development. Unsurprisingly, then, clear majorities expressed that their professional development routinely fails to provide the information necessary to initiate and sustain desired changes in their teaching practices.

These sentiments reflect national findings in studies by Teachers Know Best (Gates Foundation, 2014) and The New Teacher Project (2015), for example, which highlight how traditional top-down professional development structures rarely translate into meaningful growth in essential teacher skills and needed changes in instructional practice. Calvert (2016) presented a compelling argument to address this disconnect: moving professional learning from compliance to agency. Authentic professional learning, she argues, requires recognizing teachers as agents of their own growth rather than passive recipients of mandated training. This shift involves teachers in all stages of the learning cycle—from identifying goals and designing learning opportunities to implementing and evaluating impact. According to Calvert (2016), teacher agency flourishes under specific conditions, including opportunities for collaboration, relevance to classroom practice, autonomy in decision-making, and robust feedback.

When properly supported, collaborative, teacher-driven professional learning opportunities can foster the ongoing inquiry and reflection that both novice and experienced teachers value. These opportunities create space for educators to construct knowledge together, explore dilemmas of practice, and engage in cycles of experimentation and feedback—all of which are essential for authentic professional growth (Calvert, 2016; Darling-Hammond et al., 2017; Hyler, & Gardner, 2017). Significantly, this model blurs the lines between mentorship and professional development, allowing for distributed expertise and evolving peer-to-peer learning.

This research underscores the need for support systems that are responsive to teacher voices, embedded in authentic practice, and designed with and by educators rather than for them. Professional learning must be founded on adult learning principles, with mentors and administrator facilitators who encourage reflection, invite vulnerability, and create a shared sense of purpose. District and school leaders should ensure that professional growth is not an "event" but an integrated part of teaching, connected to student outcomes and the evolving role of teachers as professionals.

Interpretation of Key Findings

A comprehensive understanding of teachers' perceptions regarding their preparation reveals both strengths and critical gaps in current teacher education programs. This study aims to explore the lived experiences of educators across multiple districts, examining how effectively their training aligns with the practical and pedagogical demands of today's classrooms. Participants offered valuable insights into the areas they found most impactful, such as immersive clinical experiences and supportive mentorship, while also highlighting significant shortcomings in culturally responsive pedagogy, technology integration, and the continuity of support from pre-service to in-service teaching. The following sections examine these core themes, starting with the foundational role of clinical experience in shaping teachers' confidence, competence, and readiness for the profession.

Clinical Experience and Practice

Participants emphasized the importance of immersive, hands-on experiences during training. Responses reflected both robust and deeply inadequate experiences. These variations in clinical practice are consistent with Darling-Hammond et al. (2017), who emphasized that high-quality clinical experience must be central to teacher preparation programs, integrated with

coursework, and supported by expert mentors. Teachers who had extended, mentored teaching felt far more confident. The interviewed teacher remarked, “I did not get to teach solo until the last two weeks. I learned more in those two weeks than in all the previous months” (Speaker 2, Interview).

Korthagen et al. (2006) argued that reflection and practical engagement are inseparable in teacher education, calling for programs that develop professional knowledge through iterative experiences. Ball and Forzani (2009) further highlighted many preparation programs fragmented and inconsistent structure, noting that new teachers are often left underprepared without deliberately structured and sequenced clinical experiences. Additionally, Rock and Levin (2002) and Zeichner and Liston (2013) support the incorporation of structured reflection and coaching, which were frequently requested by participants in this study.

Culturally Responsive Pedagogy

While teachers overwhelmingly valued the concept of culturally responsive pedagogy (CRP), a minority of teachers in this study felt prepared to implement it. This “implementation gap” mirrors Siwatu’s (2007) findings that teachers can possess favorable attitudes toward CRP but lack the confidence or context to enact it. In this vein, the interviewed teacher shared, “We talked about cultural responsiveness, but I did not have the opportunity to teach in diverse settings” (Speaker 2, Interview).

This is also supported by foundational CRP scholars, including Gay (1995), Ladson-Billings (1995), and Weinstein et al. (2003), who assert that CRP must be experiential, relational, and embedded throughout the curriculum and classroom practices. Teachers consistently called for engagement with real students from diverse backgrounds, rather than mere theoretical

understanding. As such, Kolman et al. (2017) emphasized the importance of context-based mentorship that fosters identity development and reflection in CRP enactment.

Technology and 21st-Century Skills

Most teacher participants reported a disconnect between their preparation and current knowledge and skills and the technological demands of the modern classroom. Few recalled structured trainings aligning with concepts espoused in the TPACK model of Koehler et al. (2013), which integrates technological, pedagogical, and content area knowledge. One participant reflected, “My students know more about tech than I do. I was never taught how to use it for instruction, just basic software” (Open-ended Survey Responses), indicating clear deficiency in both pre- and in-service training and development programming for this teacher.

Crompton (2023), Galindo-Dominguez (2021), and Urbani et al. (2017) all argue that digital literacy should be integrated into both coursework and field experiences, enabling candidates to experiment with tools within real-time instructional contexts. Iovinelli (2020) notes that successful technology integration relies on continuous, job-embedded professional learning for teachers. Laskova (2021) further warns that superficial, decontextualized technology instruction inadequately prepares teachers to meet the needs of digital-native learners, a notion that indicates a potentially growing divide between the level of technological and 21st century knowledge and skills teachers operationalize during instruction compared to those that students must master in today’s K-12, post-secondary, and career settings.

Mentorship and Collaboration

Mentorship emerged as a critical component for teacher training and development, yet it remains one of the more inconsistently implemented aspects. Many teachers described transformative mentoring relationships. The interviewed teacher stated, “My mentor helped me

become the teacher I am today. Without her, I might have left" (Speaker 2, Interview). These experiences align with Ingersoll and Strong's (2011) meta-analysis, which indicates that well-structured induction programs enhance teacher retention and improve student outcomes.

However, many participants described mentorship as either irregular or nonexistent. An actual and near majority of surveyed teachers indicated that they were unsatisfied with the amount of time spent with and the quality of feedback received from their educator mentor, respectively. One surveyed teacher stated, "I had no mentor. No one observed me, provided feedback, or even asked how I was doing" (Open-Ended Survey Responses). These disparities, whereby some teachers expressing satisfaction while others expressed the opposite with respect to their mentee-mentor experiences, highlight the need for systemic evaluation and reform. Calvert (2016) and Feiman-Nemser (2001a) emphasize that mentorship in the context of teacher development should not be a one-time relationship, but rather a part of a broader, ongoing professional learning culture. Feiman-Nemser (2001a) defines educational mentoring as involving ongoing and structured collaborative inquiry, feedback, and growth-oriented dialogue.

Satisfaction Gap and Systemic Complexity

One of the most striking findings from this study is an apparent satisfaction gap between pre-service teacher education and ongoing professional development support as in-service teachers. During their pre-service practicum, teachers received more frequent feedback, felt more connected to their mentors, and had clearer instructional expectations. Once in classrooms, that support significantly diminished and often vanished. This disparity suggests that public schools are often underfunded and overburdened. Participant teachers cited overwhelming responsibilities and misaligned supports—student behavior, state testing, IEPs, English learners, and resource gaps—as reasons for their dissatisfaction with the design and implementation of

their professional development as classroom teachers. “I had support when I was in school. Once I had my class, it was sink or swim” (Speaker 2, Interview). The published research supports this experience as Ball and Forzani (2009) cautioned against fragmented professional preparation that fails to translate effectively into the classroom. Administrative turnover, unclear professional development objectives and priorities, and lack of teacher voice expressed by surveyed teachers undoubtedly further exacerbate the satisfaction gap between the support that pre-service and in-service teachers experience.

What Effective PD Looks Like: Voices from Teachers

Despite widespread dissatisfaction with conventional professional development, teachers in this study identified key attributes that contributed to the success of specific professional development experiences. These themes of (a) teacher voice, (b) administrative participation, (c) long-term mentorship, and (d) collaborative opportunities resonate with the findings of Calvert (2016), Darling-Hammond et al. (2017), and Webster-Wright (2009).

Teacher Voice in Professional Development Design

The teacher’s voice emerged as a central theme in effective professional development. Participants in this study stressed that the most impactful professional development experiences were those where they had a say in the learning goals, content, and structure. Teachers’ engagement and relevance significantly increased when they had the opportunity to co-create professional development sessions tailored to the realities of their classrooms. One participant remarked, “When we helped shape the PD, it felt like it mattered” (Speaker 2, Interview).

Calvert (2016) advocated for a shift from compliance-driven to agency-centered professional learning models. She argues that when teachers are seen as agents of their growth rather than passive recipients, professional development becomes a transformative experience.

This aligns with Webster-Wright (2009), who called for a reconceptualization of professional development as authentic, situated learning that draws upon teachers' own experiences, reflections, and practices. Darling-Hammond et al. (2017) echo this call, emphasizing that effective professional development must be relevant, teacher-driven, and grounded in instructional practice.

Administrator Participation in Professional Development

The engagement of administrators in professional development conveys a strong message of shared commitment and respect. Teachers in this study noted that when administrators and district leaders participated alongside them in professional development, it fostered a sense of partnership and investment. "Our admin joined the professional development. That showed me they were invested" (Speaker 2, Interview).

Allensworth et al. (2009) argued that developing professional capacity within a collaborative school culture is essential for sustained improvement. Leadership involvement in professional development fosters alignment between district and school goals and teaching practices, enhancing coherence across initiatives. Calvert (2016) emphasizes that when leaders model continuous learning, they cultivate a culture where growth is both expected and supported at every level.

Long-Term Mentorship as Professional Development

Sustained mentorship goes beyond mere induction into ongoing professional learning and is recognized as one of the most impactful forms of professional development. Teachers described mentors who provided regular feedback, encouraged reflection, and supported long-term growth. The interviewed teacher remarked, "My mentor did not just answer questions—they helped me think about my teaching in ways I never had before" (Speaker 2, Interview).

This approach reflects the concept of "educative mentoring" proposed by Feiman-Nemser (2001b), where mentoring is based on principles of inquiry, collaboration, and ongoing reflection. Ingersoll and Strong (2011) found that extended mentorship was associated with improved instructional quality and teacher retention. Kolman et al. (2017) further advocate for mentoring models that are personalized and context-sensitive, supporting novice teachers in navigating real classroom challenges.

Collaborative Opportunities for Professional Growth

Teachers consistently identified collaborative structures—such as professional learning, inquiry groups, and instructional round tables—as the most beneficial professional development formats. These models allowed teachers to engage in continuous and collaborative cycles of planning, implementing, and reflecting on learned instructional strategies with their colleagues. "The best professional development was not a one-day event. It was when we worked together, experimented, and returned to reflect" (Speaker 2, Interview).

Rock and Levin (2002) advocated for reflective action research and collaborative inquiry as essential components of professional growth. Collaborative professional development encourages collective responsibility, strengthens educator relationships, and fosters ongoing instructional improvement. Calvert (2016) and Darling-Hammond et al. (2017) concur, arguing that collaboration serves as a means for knowledge sharing and provides a solid structure for transforming school culture and instructional practices.

In summary, teacher voice, administrative engagement, long-term mentorship, and collaborative learning structures are not just features of quality and effective professional development—they are foundational to its design, implementation, and long-term success. When these elements are integrated into school and district systems, pre-service training and

professional development transform into vehicles for educator empowerment, instructional improvement, and student success.

Sustaining the Momentum: What Teachers Need After Preparation

As teachers transition from preparation programs to the realities of full-time classroom practice, many encounter a stark contrast between the structured and supportive environments of their training and the complex, often under-resourced conditions of their professional roles. This study's key takeaways highlight the persistent disconnect between the experiences of teacher candidates during their preparation and the ongoing support—or lack thereof—they receive once they enter the field. Themes such as (a) teacher preparation versus the realities of the classroom, (b) administrative leadership and professional development design, (c) effective mentorship within professional development, and (d) the role of reflective practice emerged as critical factors influencing teacher growth, satisfaction, and retention. These insights indicate the urgent need for greater alignment between preparation programs and in-service systems to ensure that the early gains of teacher education are built upon rather than lost throughout a teacher's career.

Teacher Preparation Versus the Realities of the Classroom

The structured and intentional design of teacher preparation programs starkly contrasts with the often fragmented and under-resourced realities that teachers face once they enter the classroom. Ball and Forzani (2009) argue that teacher preparation must center on deliberate practice, guided rehearsal, and instructional decision-making. Darling-Hammond (2006; 2017) reinforces this point by highlighting the importance of extended, mentored clinical experiences that are deeply integrated into the coursework. However, once teachers enter the field, the supports that facilitated their learning often disappear. Teachers must balance instruction, assessment, behavioral challenges, special education needs, and technology integration with

limited collaboration or feedback. Participants in this study consistently noted that their preservice preparation offered more consistent mentoring, structured reflection, and targeted feedback than their early-career teaching roles. Korthagen et al. (2006) and Zeichner and Liston (2013) stress that closing this gap requires systemic alignment between teacher education and school-based induction systems.

Administrative Leadership and Professional Development Design

Teachers expressed frustration with professional development, feeling disconnected from their daily realities. Often, these experiences were viewed as compliance-driven, top-down, or lacking relevance. This sentiment aligns with McLaughlin (1995) and Darling-Hammond et al. (2017), who argued that effective PD must be sustained, collaborative, and rooted in teachers' instructional challenges. Teachers consistently reported that administrators disengaged from professional development planning or absent from sessions reflected a lack of shared vision. Conversely, when school leaders actively participated in professional development or joined teachers in workshops, it fostered a sense of mutual investment and a collaborative culture. Allensworth et al. (2009) and Calvert (2016) emphasized the importance of administrator involvement in creating coherent, sustained professional learning environments that support individual and collective growth.

Effective Mentorship within Professional Development

The most impactful professional development and mentoring experiences shared by participants displayed several key characteristics: mentorship that extended beyond the first year, actionable and consistent feedback, job-embedded learning opportunities, and teacher involvement in planning and implementing professional development. These findings align with the existing literature on effective teacher development. Blank and Sindelar (1992) noted that

mentorship must be intentionally designed and sustained over time to ensure success. Feiman-Nemser (2001b) introduced the concept of ongoing "educative mentoring," where mentorship fosters inquiry, reflection, and identity development. Ingersoll and Strong (2011) confirmed that mentoring and induction programs positively influence teacher satisfaction, instructional effectiveness, and retention. These experiences, as reported by teachers in this study, transformed professional development and mentoring from routine compliance into genuine, collegial processes that facilitated real-time problem-solving and continuous improvement.

Reflective Practice and Sustained Growth

Teachers who felt most confident and competent described themselves as reflective practitioners who actively evaluate their teaching, adapt instruction, and engage in meaningful dialogue with colleagues about student learning. Zeichner and Liston (2013) emphasized that teacher preparation must cultivate reflective habits that extend into practice. However, while preparation programs often emphasized reflection, teachers reported that district-level professional development rarely reinforced or valued it. Instead, they desired professional development that fostered inquiry, experimentation, and peer feedback. Rock and Levin (2002) and Webster-Wright (2009) advocated for inquiry-based, context-responsive professional development models that involve teachers as active participants in their learning, rather than as passive recipients. Teachers consistently echoed this sentiment in this study, calling for more opportunities to learn in collaborative environments that permit trial, error, and revision.

These key takeaways highlight a broader challenge for the profession, ensuring that teacher preparation's supportive, structured components are sustained and amplified as teachers move into the profession. Aligning school systems with the values of mentorship, reflection,

teacher voice, and collaborative inquiry is essential to fostering long-term growth and instructional excellence.

Limitations

While this study offers valuable insights into educators' perceptions of teacher preparation and professional development, certain limitations must be acknowledged. These limitations affect the findings' scope, generalizability, and interpretive depth. Specifically, they concern four main areas: (a) a limited survey sample size, (b) the lack of participation in the focus group, which resulted in a single interview, (c) the potential influence of researcher positionality, and (d) the methodological constraints inherent in a qualitative case study design. Each area impacts the reliability, transferability, and depth of understanding from this study.

Another potential limitation is the influence of confirmation bias on the interpretation of the data. While the findings reflect a broad range of participant perspectives, there is a risk of disproportionately focusing on the negative aspects of teacher preparation and professional development, given my professional background and interest in system improvement. Notably, several responses indicated both satisfaction and dissatisfaction with various elements of preparation. Future research should investigate the differences between those who report more positive versus negative perceptions of professional development to better understand the variability in teachers' experiences and the underlying causes in ways that can guide systemic and idiosyncratic improvements.

Survey Sample Size

Although the survey was distributed across five districts, only 39 to 41 participants completed all items. This small sample size reduces the study's statistical power and limits its generalizability. The findings are best interpreted as qualitative, exploratory insights rather than

representative data. The limited sample size may also introduce response bias, as those with intense positive or negative experiences may have been more likely to respond (Creswell & Poth, 2018). Expanding this sample in future work would enhance the reliability and demographic representativeness of the data.

Focus Group and Interview Participation

Despite efforts to recruit participants for in-depth focus groups, only one teacher participated in a follow-up interview. This limited engagement curtailed opportunities to triangulate findings or delve deeper into nuanced themes such as mentorship quality, administrator support, and the lived experiences of teachers from underrepresented groups. As Merriam and Tisdell (2016) pointed out, rich qualitative findings arise from repeated interactions and saturation of themes, conditions that this study could not fully fulfill. The fact that lack of volunteers for intended focus groups yielded a single interview may be indicative of the personal and professional pressures that teachers face, but it nevertheless limits the generalizability of these findings, even within the context and implication of a problem of practice dissertation conducted in the Pacific Northwest.

Researcher Positionality Bias

As a researcher and current superintendent with prior experience as a teacher and administrator, my positionality influenced how I interpreted participant comments and which themes I elevated. While these professional experiences provided contextual insight, they also have the potential to introduce subconscious biases. Self-examination, colleague review, and member checking were employed to mitigate these risks, aligning with qualitative best practices (Lincoln & Guba, 1985), though achieving complete neutrality in qualitative analysis is inherently challenging.

Methodological Constraints and Case Study Design

This study employed a case study framework with well-defined boundaries (Stake, 1995), focusing on an in-depth examination of teacher perceptions within a specific geographic and institutional context. As such, the findings are not meant for broad generalization, but rather, provide contextualized insights into the challenges and successes of teacher preparation and ongoing professional development. The educational landscape in the Pacific Northwest may not reflect other U.S. regions, and local policies along with district structures may further shape the study's implications for similar environments.

Future Research

The insights and limitations identified in this study suggest several rich pathways for future research. Future inquiries should address gaps in the current study and explore emerging themes in greater depth. Specifically, four key areas warrant deeper investigation: (a) conducting longitudinal studies to trace teacher growth over time, (b) examining the role of administrator involvement in professional development, (c) exploring access and equity in mentorship experiences, and (d) investigating how differentiated professional development models can be effectively implemented to support teacher growth across various contexts and career stages. These directions offer promising opportunities to validate and expand on this study's findings.

Future research should also explore the factors contributing to the differences in observed in teachers' satisfaction with professional development experiences. While this study identified that perceptions varied across participants, the reasons behind higher or lower satisfaction levels remain unclear. Investigating whether consistently satisfied teachers experience greater autonomy or influence in professional development planning, have more supportive administrative involvement and participation, or are provided opportunities for collaborative,

sustained learning over time would be valuable. Such findings would align with the findings of this study, where several participants emphasized the importance of teacher voice, administrator engagement, and relevance to instructional needs as essential components of effective professional development. Understanding the underlying reasons for teachers' perceptions can assist districts and schools in designing professional development structures that more effectively meet the diverse learning needs of educators.

Finally, based on the findings of this study, it may be beneficial to develop a graduate course or structured professional learning series for district and school administrators on how to design, develop, and implement teacher-centered professional development. Such coursework could focus on the key elements identified in this and other research studies—embedding teacher voice, ensuring administrative engagement and participation, sustaining long-term support, and aligning professional development with instructional needs. Additionally, creating a practical tool or guide for administrators could support the identification of teacher needs and promote the implementation of relevant, reflective, and differentiated professional development. A supportive tool could include checklists, planning frameworks, and reflection prompts to ensure that the core components of effective professional development, as reported in empirical research and classroom teachers, are addressed.

Conduct Longitudinal Studies Over Pre- and In-service Development

One clear area for expansion is longitudinal research. Future studies should track teacher cohorts from preservice training through their first five years in the classroom to evaluate how preparation influences confidence, efficacy, instructional skill, and retention. Longitudinal designs can reveal the long-term impact of mentorship and professional development while

helping to identify which supports are most effective at key professional stages (Darling-Hammond et al., 2017).

Study the Role of Administrator in Professional Development

This study found that the level of administrator participation influenced teachers' perceptions of professional development. Future research should explore how leadership engagement impacts the design, implementation, and reception of professional development. Specifically, studies could investigate whether administrator presence enhances instructional alignment, promotes collective accountability, and strengthens the culture of school-based learning (Allensworth et al., 2009; Calvert, 2016).

Explore Equity in Mentorship Access

Mentorship has emerged as one of the most valued forms of support, yet questions remain about who receives high-quality mentoring and under what conditions. Research should examine how mentoring is distributed across various contexts, including rural, urban, and high-poverty schools. Additionally, studies should explore whether teachers of color, novice teachers, or those in marginalized positions have equitable access to mentoring models (Feiman-Nemser, 2001a; Kolman et al., 2017). These studies could inform policies regarding mentor selection, training, and support.

Examine Differentiated Professional Development Models

Finally, more research is needed on differentiated professional development models that reflect teacher voice, diverse roles, identities, and career stages. Professional development for a veteran special education teacher should differ from that for a novice generalist in a multilingual classroom. Future inquiry could focus on designing flexible professional development systems

that support teacher agency, respond to contextual needs, and align with evidence-based instructional goals (Darling-Hammond et al., 2017; Webster-Wright, 2009).

Conclusion

This study explores how teachers perceive their preparation in four critical domains: clinical experience, culturally responsive pedagogy, technology and 21st-century skills, and mentorship. Grounded in literature identifying these areas as central to effective educator development (Darling-Hammond, 2017; Ingersoll & Strong, 2011; Koehler et al., 2013; Ladson-Billings, 1995), the study employed a qualitative case study design to examine how these priorities are experienced across five school districts in the Pacific Northwest. The findings revealed a stark and consistent gap between the structured, supportive nature of preservice training and the often-fragmented reality of early-career teaching.

Teachers strongly affirmed the significance of immersive clinical experiences, but they often described these experiences as too brief or primarily observational. Similarly, while educators expressed a strong commitment to culturally responsive pedagogy, they noted having minimal opportunity to practice it authentically in diverse settings. Technology training also lagged behind the demands of 21st-century classrooms, leaving many participants unprepared to integrate digital tools meaningfully into their instruction. Mentorship and collaboration—widely recognized in the literature as essential for teacher retention and growth—proved to be highly effective, with some educators receiving support while others felt isolated and adrift.

These findings highlight a fundamental challenge: the lack of systemic alignment between teacher preparation programs and the ongoing professional development structures of school districts. While preparation programs emphasize reflection, pedagogical flexibility, and cultural responsiveness, these practices are often not sustained or reinforced once teachers enter

the workforce. This apparent disconnect limits instructional effectiveness and contributes to the attrition and burnout frequently observed among early-career educators.

To close this gap, school systems must build upon the foundational work of teacher preparation programs by extending support through structured, long-term mentorship, collaborative professional learning, and context-driven professional development that centers around teacher voice. By doing so, districts can ensure that the principles guiding teacher education—authentic experience, equity, and reflective practice—remain cornerstones of teaching throughout an educator's career. This study contributes to the call for a more cohesive, sustained, and human-centered approach to developing and supporting the educators our students deserve. In summary, this study marks one step in documenting teacher perspectives on preparation, ongoing support, and an effective professional development model. However, more robust, inclusive, and longitudinal research is needed to build on these findings and to ensure that preparation and development systems evolve in response to teachers' lived realities.

APPENDIX A

SURVEY INVITATION AND PROTOCOL

Subject: Invitation to Participate in Educational Research Study

Dear Educator,

I hope this message finds you well.

My name is Adam Watkins, and I am currently a doctoral student at the University of Oregon as well as being a Superintendent in an Oregon district, so I know how very busy you are. I am asking for your help because I believe you have important insights to share, and I am eager to learn from you.

As part of my dissertation research, I am conducting a study on the effectiveness of teacher preparation programs and their impact on classroom practices.

I invite you to participate in a very brief online survey to gather valuable insights from educators like yourself. Your responses will play a crucial role in shaping my research direction, helping refine my research questions, and informing subsequent focus groups and interviews.

Confidentiality Assurance: Please be assured that I will keep all responses strictly confidential and will only use them for this study. I will not include personal identifiers in any reports or publications resulting from this research, and all data will be securely stored on my computer and accessible only to me.

Survey Details:

- **Estimated Time:** The survey will take approximately 10-15 minutes to complete.
- **Format:** Multiple choice and short answers.
- **Link to the Survey:** [Insert Link Here]

Your expertise and experiences are invaluable to this research, and I would greatly appreciate your participation. Completing this survey will contribute to the advancement of educational research and potentially impact future teacher training and development programs.

Thank you very much for considering this invitation. Don't hesitate to contact me at awatkin@uoregon.edu if you have any questions or require further information about the study.

Thank you for your willingness to participate.

Warm regards,

Adam Watkins
Doctoral Candidate
University of Oregon

UNIVERSITY OF OREGON

Introduction

Dear Oregon Teachers,

Thank you for taking time to share your perceptions and experiences as Oregon public school teachers. This survey is expected to take no more than 10-15 minutes. At the end, you will be asked to indicate your willingness to participate in a follow-up focus group.

Background: There are key areas that research shows are critical to teacher preparation and that should be incorporated into classroom practice early on as pedagogical and content knowledge develop (clinical experience and classroom practice, culturally responsive professional development, technological advancements and 21st-century skills, and collaboration and mentorship opportunities). Teacher training programs (TPP) prepare teachers to implement best practices in these critical areas; however, preparation can be uneven and across different TPP, which results in uneven preparedness and implementation

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in classrooms.

Purpose: This study seeks to learn more about teachers' self-reported support needs in these critical areas of classroom practice, and how reported needs align with effective approaches to professional development and learning. Ideally, results will yield: (a) recommendations for targeted approaches to supporting teachers in these critical areas of practice, and (c) blueprints for incorporating teacher agency (ownership) into the process of determining and addressing support needs through professional learning and development.

Benefit to you: You can add to our understanding of ways to support Oregon teachers, especially early career/new teachers, which could lead to stronger practice, less job turnover, higher job satisfaction, and better outcomes for students.

Confidentiality Assurance: Please be assured that all responses will be kept strictly confidential and will only be used in the context of this study. Personal identifiers will not be used in any datasets, reports, or publications, and all data will be securely stored on a computer and server that is accessible only to me and my doctoral adviser.

This research matters to me as an Oregon educator because I

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hope to better support teachers in their quest for improving practice and outcomes.

Thank you for joining me on this journey.

To continue, please click on the ***Next page*** button at the bottom right-hand side of your screen.

Informed Consent

You are being asked to volunteer for a research study. It is up to you whether you choose to participate or not. To learn more, please click the link below to read the full Consent for Research Participation and answer the consent question that follows.

Survey Informed Consent Information

I have had the opportunity to read and consider the information in Informed Consent Form. I have asked any questions necessary to make a decision about my participation. I understand that I can ask additional questions throughout my participation. I have been provided with a copy of this consent form. I understand that if my ability to consent or assent for myself changes, either I or my legal representative may be asked to re-consent prior to my continued participation in this study.

3

I understand that by clicking 'yes' and advancing to the next page, I volunteer to participate in this research. I understand that I am not waiving any legal rights.

- ◯ Yes
- ◯ No

Demographic Questions

What is your age?

Please move slider to your age.

What is your gender?

- ◯ Male, He/Him
- ◯ Female, She/Her
- ◯ Non-binary / third gender
- ◯ Prefer not to say

How many years of teaching experience do you have?

4

Please move slider to the years you've taught.

What level do you primarily teach?

- ○ Elementary School
- ○ Middle School
- ○ High School
- ○ Combined Grades (K-8)

What is your highest level of education attained?

- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ Doctoral Degree
- ☐ Other

What type of teacher preparation program did you complete?

- ○ Traditional (university-based program leading to certification)
- ○ Non-traditional (alternative certification paths, such as Teach for America, online programs, on-the-job training under supervision while taking classes, etc.)
- ○ Self-Directed Study (self-study or non-structured programs may include a combination of workshops and online courses)

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Overall, how well did your teacher preparation program prepare you for the challenges of being a teacher?

- ○ Very well
- ○ Well
- ○ Somewhat well
- ○ Not well

On a scale of 1 (low quality) to 10 (high quality), how would you rate the overall quality of the teacher preparation program you attended?

Please move slider to quality rating.

Satisfaction with your Clinical Teaching Practicum Experience

Satisfaction with your Clinical Teaching Practicum Experience

In answering the following questions, please think about your Clinical Teaching Practicum experience.

6

How satisfied are you with the opportunities you had to *observe different classrooms* during your clinical teaching practicum experience?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with the opportunities you had to *practice your teaching* during your clinical teaching practicum experience?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with the *frequency of feedback* you received during your clinical teaching practicum experience?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

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How satisfied are you with the *quality of feedback* you received during your clinical teaching practicum experience?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

Overall, how satisfied are you with *your overall* clinical teaching practicum experience?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

Culturally Responsive Teaching Skills

Culturally Responsive Teaching Skills

In answering the following questions, please consider the entirety of your skill in Culturally Responsive Teaching.

How satisfied are you with your *awareness* of the importance of

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Culturally Responsive Teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *knowledge of instructional materials* for Culturally Responsive Teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *knowledge of instructional strategies for* implementing Culturally Responsive Teaching in our classroom?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *overall ability to effectively implement* Culturally Responsive Teaching in your classroom?

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- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

Incorporating Technology in Your Teaching

Incorporating Technology in Your Teaching

In answering the following questions, please consider the entirety of your skills in Incorporating Technology in your teaching?

How satisfied are you with your *awareness* of the importance of using technology into your teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *knowledge of technology materials/programs* to use in your teaching?

- ○ Very satisfied

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- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *knowledge of instructional strategies* using technology in your teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *overall ability to effectively implement* technology into your teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

21st Century Skills

Incorporating 21st Century Teaching Skills

In answering the following questions, please consider the entirety of your skills in Incorporating 21st Century.

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Teaching Skills such as critical thinking, creativity, collaboration, and communication.

How satisfied are you with your *awareness* of incorporating 21st Century Teaching Skills such as critical thinking, creativity, collaboration, and communication into your teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *knowledge of instructional materials* to effectively implement 21st Century Teaching Skills into your teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *knowledge of instructional strategies* for implementing 21st Century Teaching Skills in your teaching?

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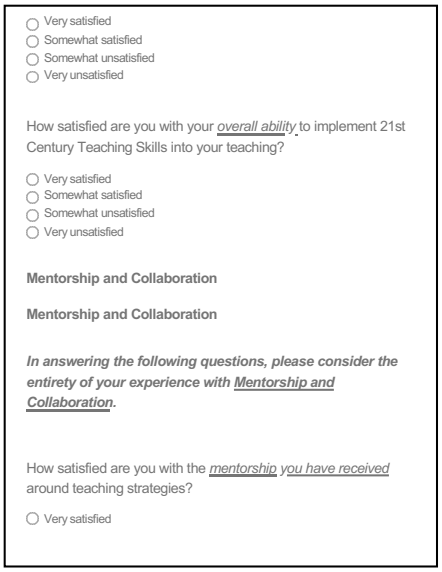

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with your *overall ability* to implement 21st Century Teaching Skills into your teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

Mentorship and Collaboration

Mentorship and Collaboration

In answering the following questions, please consider the entirety of your experience with Mentorship and Collaboration.

How satisfied are you with the *mentorship you have received* around teaching strategies?

- ○ Very satisfied

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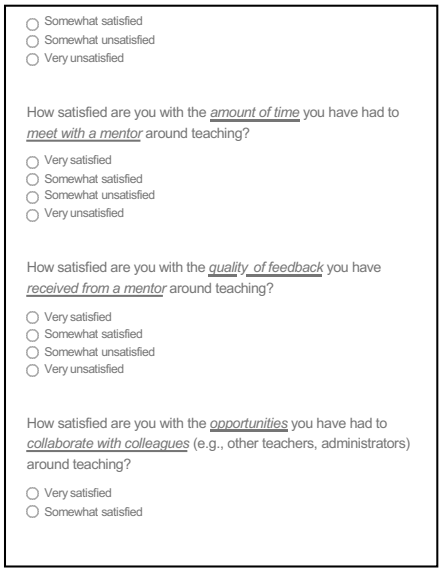


- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with the *amount of time* you have had to *meet with a mentor* around teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

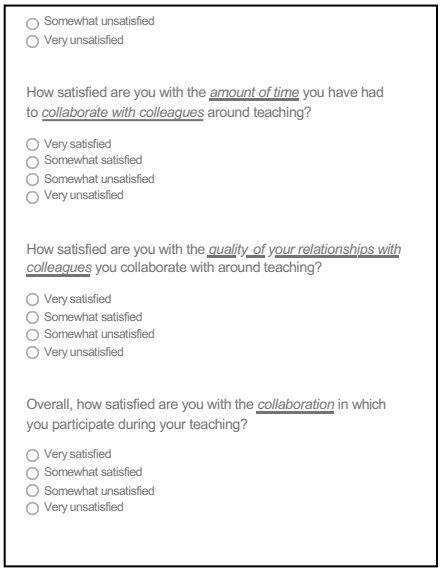
How satisfied are you with the *quality of feedback* you have *received from a mentor* around teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with the *opportunities* you have had to *collaborate with colleagues* (e.g., other teachers, administrators) around teaching?

- ○ Very satisfied
- ○ Somewhat satisfied

14



- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with the *amount of time* you have had to *collaborate with colleagues* around teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with the *quality of your relationships with colleagues* you collaborate with around teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

Overall, how satisfied are you with the *collaboration* in which you participate during your teaching?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

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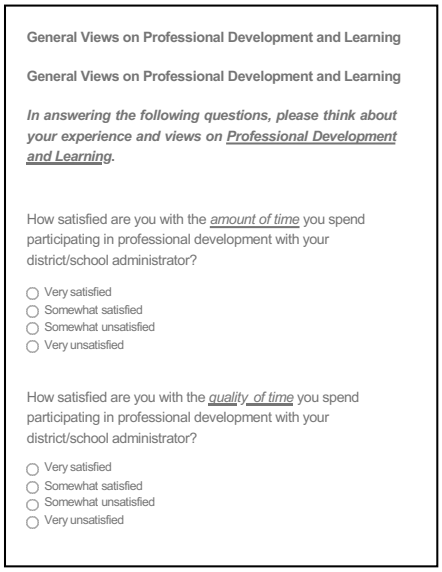

General Views on Professional Development and Learning

General Views on Professional Development and Learning

In answering the following questions, please think about your experience and views on Professional Development and Learning.

How satisfied are you with the *amount of time* you spend participating in professional development with your district/school administrator?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

How satisfied are you with the *quality of time* you spend participating in professional development with your district/school administrator?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Somewhat unsatisfied
- ○ Very unsatisfied

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How satisfied are you with the professional development *learning topics* provided through your district/school administrator?

- ◯ Very satisfied
- ◯ Somewhat satisfied
- ◯ Somewhat unsatisfied
- ◯ Very unsatisfied

How satisfied are you with the *amount of ownership* you have over your professional development experiences with your district/school administrator ?

- ◯ Very satisfied
- ◯ Somewhat satisfied
- ◯ Somewhat unsatisfied
- ◯ Very unsatisfied

How *useful* is the professional development you receive from your district/school administrator?

- ◯ Very useful
- ◯ Mostly useful
- ◯ Somewhat useful
- ◯ Not useful at all

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Is the professional development you receive from your district/school administrator is *worth your time*?

- ◯ Always
- ◯ Mostly
- ◯ Sometimes
- ◯ Never

Does the professional development you receive from your district/school administrator *address your learning needs*?

- ◯ Always
- ◯ Mostly
- ◯ Sometimes
- ◯ Never

Does the professional development you receive from your district/school administrator have the *appropriate depth of content*?

- ◯ Always
- ◯ Mostly
- ◯ Sometimes
- ◯ Never

Does the professional development you receive from your

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district/school administrator provide you with the *information needed for initiating change* in your teaching?

- ◯ Always
- ◯ Mostly
- ◯ Sometimes
- ◯ Never

Does the professional development you receive from your district/school administrator provide you with the information needed for *sustaining changes you implement* in your teaching?

- ◯ Always
- ◯ Mostly
- ◯ Sometimes
- ◯ Never

What, if any, *factors motivate you to actively engage* in professional development provided by your district/school administrator?

What specific strategies should be implemented by your district/school administrator to *improve the quality and*

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usefulness of professional development for teachers?

Additional Open-ended Comments and Feedback

Please provide any additional thoughts not captured above regarding your teacher preparation, professional development, and any supports you need to improve your teaching.

Before you go!

I'm looking for volunteers to participate in one of three follow-up focus groups. The goal of the focus groups will be to dive more deeply into how districts and school leaders can give teachers greater agency over determining and addressing their professional learning and development needs in the critical areas of practice targeted in this survey.

If you would like to be considered for focus group participation, please click on the link below to share your contact information. Rest assured, your survey responses will remain completely

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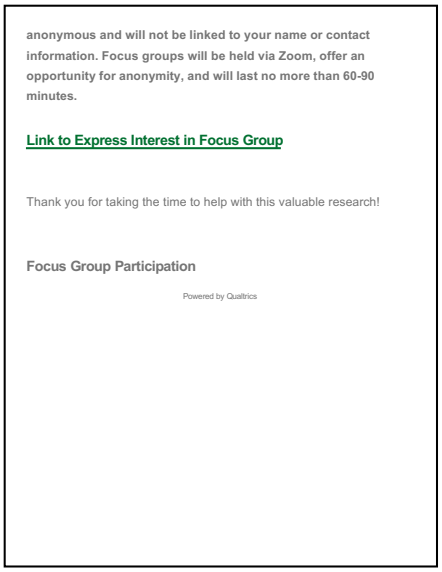
anonymous and will not be linked to your name or contact information. Focus groups will be held via Zoom, offer an opportunity for anonymity, and will last no more than 60-90 minutes.

Link to Express Interest in Focus Group

Thank you for taking the time to help with this valuable research!

Focus Group Participation

Powered by Qualtrics

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APPENDIX B

INTERVIEW PROTOCOL

Interview Protocol: Teacher Perceptions of Professional Development and Support

Interviewee Name: _____
Date: _____
Interviewer: Adam Watkins
Setting/Location: _____

Objective:

This Interview aims to explore teachers' perceptions and experiences related to professional development (PD), ongoing support, and the role of school leadership in shaping instructional growth. This Interview is part of a more extensive qualitative case study that examines how professional learning structures can be improved to better meet the needs of educators at various career stages. Specifically, the research focuses on four interconnected areas: the design and implementation of PD, time allocation for follow-through, feedback, ongoing support mechanisms, and the inclusion of teacher's voices in decision-making. The insights will inform recommendations for improving teacher preparation and in-service support at the district and building levels.

Introduction:

Opening Greeting:

Good afternoon,
Thank you for joining me today. My name is Adam Watkins, and I am a doctoral student at the University of Oregon. I appreciate your willingness to participate in this interview, which is part of my dissertation research.

Today's conversation will focus on several important themes related to teacher preparation and ongoing professional growth. These themes include your experiences with clinical teaching and classroom-based opportunities, developing culturally responsive teaching practices, integrating technology into your instruction, and the mentorship or collaboration you received during your preparation process.

Your insights are incredibly valuable and will help shape the future phases of this study, including the refinement of the interview questions for additional participants. The goal is to better understand the experiences that most influence teachers' readiness, confidence, and effectiveness in the classroom.

This interview is audio recorded solely to ensure accuracy in capturing your responses. All information you share will remain strictly confidential. Your name and identifying details will be

removed from any transcripts, reports, or presentations. Additionally, please refrain from sharing anything discussed today with others as a measure of privacy and respect.

This is a voluntary interview. You are free to skip any questions or withdraw at any time without consequence. Do you have any questions before we begin?

Recording Notification:

Please note that this session will be audio-recorded. The recording is solely to capture details accurately. It will ensure that your contributions are correctly represented. It will also assist in the precise development of interview questions for the next phase of this research.

Introduction of Participants:

I would like to ask you to introduce yourself briefly. Please share the first name you prefer people to use during today's focus group, your current role, and some information about your background in education, including the level you teach, the subject if applicable, and whether you participated in a traditional or alternative teacher preparation program.

Once the introductions are complete, we will start with our first topic. Please remember that this discussion has no right or wrong answers; I value your honest opinions and experiences.

Again, thank you for your time and contribution to this critical topic. Your perspectives are Essential to shaping a more effective and responsive educational environment for the future teachers.

Interview Questions:

Question 1: Background Information

- Please share your name, current role, years of teaching experience, and the subjects/grade levels you have taught.
- Did you go through a traditional teacher preparation program or an alternative pathway? Please describe briefly.

Question 2: Design, Implementation, and Time for Professional Development

- What would an effective professional development structure look like for you that includes a clear plan for implementation and follow-through?

Follow-up Prompts:

- How should administrators communicate and support that plan?
- Can you describe an experience where PD was especially effective or ineffective?
- How much time would be adequate to support implementing a new instructional strategy or approach?
- Given the limited time in a teacher's day, what changes or adjustments would help you apply new learning more effectively?

Question 3: Feedback, Follow-up, and Ongoing Support

- What does effective professional development look like when it includes feedback, follow-up, and ongoing support?

Follow-up Prompts:

- What types of follow-ups have been most helpful to you (e.g., coaching, peer observations, surveys)?
- How could these supports be better integrated into your school's PD system?
- How do varying experience levels (e.g., new teachers vs. veterans) influence the support needed?
- Can you share an example of an initiative that provided helpful ongoing support?

Question 4: Teacher Voice and Collaboration in PD Design

- What barriers have you experienced when incorporating teacher voice and collaboration into the design and implementation of professional development?

Follow-up Prompts:

- How often are you asked for input in the planning of PD?
- What could administrators do to increase teacher involvement in the process?
- What helps you feel that your knowledge and experience are being valued?
- What structural or time-based challenges limit collaboration?

Question 5: Administrator Leadership and Modeling

- How does an administrator's modeling and buy-in of professional development priorities impact your engagement and the school's culture?

Follow-up Prompts:

- How have you previously responded to leaders who model PD practices versus those who don't?
- Can you share when administrative follow-through made a difference in your instruction?
- In your view, how important is it for leaders to embody the expectations they set for teachers?

Question 6: Final Reflections

- **Closing Question:** Are there any final thoughts you'd like to share regarding professional development, leadership, or support systems that help—or hinder—teacher growth?

  Thank you all for your active participation and for sharing your valuable insights today. I am grateful for your contributions, which will significantly enrich my doctoral research at the University of Oregon. Your experiences and perspectives are not only essential; they are the very core of our understanding of the current landscape and potential improvements for teachers.

  As we conclude today's session, I want to emphasize the importance of maintaining the confidentiality of all information shared here. This discussion has been recorded solely

for research purposes, and the details of this focus group will be used to verify accuracy based on your responses.

If you have any further thoughts, or if there's anything you feel wasn't addressed during our discussion that you would like to contribute, please feel free to contact me directly. I highly value your continued input as I refine the next steps in my research. I will process the insights from today and may follow up if additional questions or clarifications arise.

Thank you once again for your time and invaluable contributions. I hope this session was as enriching for you as it was for me. Have a wonderful afternoon.

Conclude and stop recording.

APPENDIX C

DISSERTATION TIMELINE

TASK	DATE
Proposal Meeting	October 16, 2024
Submitting IRB	August 12, 2025
Begin data collection	November 1, 2024
Finish data collection	December 15, 2024
Write / complete results chapter	February 15, 2025
Apply for Final Oral Defense Grad Web account	February 24, 2025
Send advisor a complete draft for review	March 10, 2025
Complete initial revisions	March 21, 2025
RSVP Commencement	April 2, 2025
Send Advisor final draft to review	April 4, 2025
Order Commencement Regalia	April 4, 2025
Apply for Degree	April 5, 2025
Schedule dissertation defense	April 10, 2025
Send committee a final draft	April 26, 2025
Dissertation defense	May 16, 2025
Submit committee requested revisions	May 17, 2025
Receive revised final draft	May 18, 2025
Submit final dissertation to Division of Graduate Studies – Upload dissertation to ProQuest	May 18, 2025
Commencement UO	June 16, 2025

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