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Kindergarten Teachers' Experiences and Training With Critical Reflection to Support Adaptive Teaching

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Walden University

College of Education and Human Sciences

This is to certify that the doctoral study by

Tessa E. Cushman

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University
2025

Abstract

Kindergarten Teachers' Experiences and Training With Critical Reflection

to Support Adaptive Teaching

by

Tessa E. Cushman

MA, University of Northern Iowa, 2015

BS, Trevecca Nazarene University, 2004

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

August 2025

Abstract

The problem that was addressed in this study is that kindergarten teachers often lack training in critical reflection as part of their adaptive teaching practice. Despite much research on this skill area, there was a lack of knowledge regarding training kindergarten teachers receive on critical reflection and how they use it to adapt their teaching. The purpose of this study was to explore the experiences of kindergarten teachers regarding the training they received on critical reflection and the support they felt they needed to implement critical reflection for an adaptive teaching practice. Schön's reflective practice theory was the conceptual framework for the study and the basis for its 2 research questions. A basic qualitative design featuring semi structured interviews was used to collect data from 7 kindergarten teachers working in the northwestern United States. Thematic analysis involving axial and a priori coding yielded themes of training experiences, challenges, supports needed, and the value of grace and celebration. Additional findings focused on critical reflection in adaptive teaching. Results indicated that most participants felt unprepared to apply critical reflection at the start of their careers but developed this practice with experience; participants noted lack of time, class size, and curricular limitations as barriers. Participants highlighted the importance of self-support and the celebration of progress. Positive social change may result when teachers receive guidance and support in applying critical reflection. Targeted training may lead to better student learning outcomes, less teacher burnout, and a cultivation of a critical reflective mindset in teachers that may promote gains in student achievement.

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Dedication

This is dedicated to two important teachers in my life, Mom and Dad. Mom, you were and are my favorite teacher. Dad, you modeled critical reflection so many times in our conversations and continue to inspire me to critically reflect on life. Thank you. I love you both immensely.

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I would like to take a moment to thank Dr. Patricia Anderson for all the numerous ways she has supported me, encouraged me, and challenged me to become a better critical thinker, reflector, and writer in this dissertation journey. I could not have done this without you, and I'm thankful you were chosen to be my committee chair. Thank you. I also would like to thank Dr. Amy White, who gave us the support and advice when we needed it, especially at the beginning of this. Thank you. And thank you to Dr. Rebecca Curtis for your second opinions and critical feedback that have made this dissertation better. Thank you.

I would also like to thank my family and friends who have tirelessly spurred me on to earn my terminal degree (yes, I will not be going to school anymore, but I will always be trying to learn new things). To Matt, my husband, who listened to my many explanations and let me verbally problem solve as things arose, distracted me from thinking too much about this, allowed me to write without the added responsibilities of being a mom for long periods of time, and loved me throughout it all. To my girls, Audrey and Sabrina, thanks for your patience with me as there were times when I had to write. I pray that I have given you an example of how to achieve your goals with perseverance and grace. Know that you can do everything you set your mind to with God as your guide. To my parents, Bob and Ellen, for supporting me through conversations and prayer. Those were what sustained me when I was discouraged. To my sisters and brother, Chante', Becca, and Caleb, talking on the phone with you all gave me a reprieve from the mental exhaustion of this process and allowed me to connect, laugh, and

refocus. Thank you to each and every one of you. I love you more than I can express or show you, but I will try my best to do so.

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Chapter 1: Introduction to the Study

The focus of this study was lack of training kindergarten teachers are provided in critical reflection as part of their adaptive teaching practice. This study needed to be conducted because critical reflection is essential for implementation of teaching that is adaptive to student needs and pedagogical challenges (J. Chen, 2022). Positive social change may result from this study when kindergarten teachers' understanding of critical reflection as part of adaptive practice is better recognized and the level of training needed to develop critical reflection is fully appreciated. Results of this study may inspire cultivation of critical reflection as part of an adaptive teaching practice that supports student learning and teacher growth as an educator (see Tocco et al., 2023). In this chapter, I describe the problem, purpose of the study, identify the research questions (RQs), describe the conceptual framework, nature of the study, define the key words, assumptions, the scope and delimitations, limitations, and the significance of the study.

Background

Critical reflection is an important part of adjusting instruction to meet the needs of diverse learners. According to Lenkaitis et al. (2020), a teacher's reflective practice can support their professional growth by identifying areas of weakness and then inspiring ways to improve. Shelton and Kaminski (2023) found that critical reflection can support a change in perspective on teaching, resulting in more equitable student learning. For early childhood teachers, J. Chen (2023) found critical reflection to be helpful in working with young children with various developmental and learning needs who need adaptations to be successful in class. In an article published in the prior year, J. Chen (2022) also

identified a gap in practice stating that 1st-year early childhood teachers lacked training in critical reflection which inhibits growth as an adaptive teacher.

Adaptive teaching is a process by which teachers intentionally examine and engage in critical reflection on their observations, content knowledge, and student needs to tailor their instructional approach to support each student's learning (Gallagher et al., 2022). Suh et al. (2024) described adaptive teaching as an ability to customize instruction by identifying and understanding the varying cultures, languages, and cognitive abilities of students to sustain their learning and address their needs. The adaptations can take place before instruction, by redesigning learning based on insights from teachers' prior observations of students, and adaptations that happen within a lesson or activity by improvising instruction to better suit the dynamic needs of students (Gazioglu et al., 2022). Vaughn et al. (2022) argued that adaptive teaching is needed to support teachers' professional development and to close the learning gap. According to Ankrum et al. (2020), adaptive teaching is an essential instructional strategy during lessons that empowers teachers to meet students' individual and collective needs.

Although critical reflection and adaptive teaching are intertwined, these teaching skills are both individual and collective. To become proficient in critical reflection and adaptive teaching, one must develop a reflective practice (Perrotta & Bohan, 2020). Ebby et al. (2023) found that viewing videos of 1st-year mathematics teachers' instruction bolstered teachers' professional growth and helped them to better determine disparities between their perspectives of their own teaching and their actual teaching. According to Shin and Recchia (2023), critical reflection happens through various means such as

reflective journaling, mentoring, and professional learning communities (PLCs) of preservice early childhood teachers. Training in critical reflection can be developed during undergraduate studies of future teachers as they develop and cultivate their teaching skills in practicums or higher education teachers. For example, McGarr (2020) studied how critical reflection during virtual simulations of teaching situations with preservice teachers affected their professional growth in behavior management and teaching knowledge. Karkowski et al. (2023) found that reflective practice using e-portfolios for faculty and students in a university setting helped participants to become a community of learners. This leaves open the question of whether the reflective skills learned in preservice experiences are retained by teachers after they begin their professional practice and if those skills continue to be honed through in-service professional development.

Problem Statement

The problem that was addressed through this study is that kindergarten teachers often lack training in critical reflection as part of their adaptive teaching practice (J. Chen, 2022; Vaughn, 2019). According to Vaughn (2019), fewer than half of teachers use reflection-in-action during literacy instruction. J. Chen (2022) found that teachers lack training in critical reflection to support their growth in adaptive teaching. J. Chen also suggested that preservice teacher education programs should better prepare teachers for changing teaching contexts, noting that reflective practice is an essential part of adaptive teaching. Virmani et al. (2019) explained there was a need to identify ways to facilitate reflective thinking and practices to promote early childhood professionals'

developmentally supportive responses in the social-emotional development of children. Critical reflection training among kindergarten teachers has been unaddressed in the literature (Lenkaitis et al., 2020). Further examination of the training received by kindergarten teachers on critical reflection was needed to illuminate how to develop adaptive teaching practices.

Purpose of the Study

The purpose of this basic qualitative study was to explore the experiences of kindergarten teachers regarding the training they received on critical reflection and the support they feel they need to implement critical reflection for an adaptive teaching practice. A phenomenological approach was used to conduct this study as described by Ravitch and Carl (2021). Ravitch and Carl described qualitative, phenomenological design as exploratory in nature, enacted by interviewing a group of people and investigating how they view or experience a phenomenon. In this study, the phenomena being studied were critical reflection training and adaptive teaching. I interviewed kindergarten teachers to explore their experiences on critical reflection practice, training for engaging in critical reflection, and adaptive teaching strategies. Participants were kindergarten teachers in one public school district in the northwestern region of the United States.

Research Questions

I sought to answer two RQs in this study:

RQ1: How do kindergarten teachers describe their experiences with training they have received in critical reflection?

RQ2: How do kindergarten teachers describe the support they need to implement critical reflection as part of their adaptive teaching practice?

Conceptual Framework

The framework that underpinned this study was Schön's (1983) reflective practice theory. In his theory, Schön posits that reflection is essential to growth. The key components of reflective practice are critical reflection, experiential learning, collaborative learning, and action research (Schön, 1983; Schön, 1987). This theory formed the framework for my study as it informed me as a researcher and allowed me to use knowledge about critical reflection to support participants as they shared their experiences, training, and adaptive teaching associated with critical reflection. The main component of reflective practice theory that supported this study was the experiential learning of kindergarten teachers in the United States (see Schön, 1983), which informed the interview questions. I describe this framework in more detail in Chapter 2.

Nature of the Study

The nature of this basic qualitative study was phenomenological because I aimed to understand kindergarten teachers' experiences with critical reflection training and how this training has affected their use of adaptive teaching. Phenomenological studies are designed to explore a phenomenon with a specific group of people (Ravitch & Carl, 2021). The phenomena being studied were critical reflection and adaptive teaching methods. By employing a basic qualitative approach, I was able to understand the perspectives of kindergarten teachers with critical reflection and how they have used this training to use adaptive teaching strategies.

I conducted interviews with seven kindergarten teachers to explore their perspectives regarding the training they received in critical reflection and the support they feel they need to implement critical reflection as part of adaptive teaching practice. A basic qualitative design with interviews permitted me to explore participants' perspectives regarding critical reflective practice and what training they have had to support their reflective practice. Semi structured interviews allowed me to pursue information about being a critical reflective practitioner, the training they have had, and adaptations to their teaching they developed, using probing questions to understand further and clarify their responses to the RQs (see Lambert, 2012).

Definitions

Adaptive teaching: The ability to be innovative by using reflection to scrutinize how teaching pedagogy, curriculum, and student behaviors affected student learning outcomes and respond by changing approaches that better support the diverse learning needs of students (Suh et al., 2024).

Critical reflection: The process of intentionally thinking and examining observations and actions about how one's beliefs, philosophies, and actions affect learning (Fox et al., 2019).

Reflective practice: The use of continual critical reflection as a habit to grow professionally and to support students' learning (Gorski & Dalton, 2020).

Assumptions

I assumed that the kindergarten teacher participants were truthful and complete in their responses to interview questions. Such an assumption was necessary in an

interview-based study, in which the quality of data depended on the veracity of informants (see Ravitch & Carl, 2021). Interview questions were designed to encourage a frank conversation and support participants' detailed responses.

Scope and Delimitations

The scope of this study encompassed the experiences of kindergarten teachers regarding critical reflective practice, the training they received on critical reflection, and how they have used critical reflection to be adaptive in their teaching. This study was delimited to comprise kindergarten teachers from one public school district in the northwestern United States, who taught in general education classrooms and who had taught kindergarten for at least 1 year. Teachers excluded from the study were those who taught a different grade level, taught in a different region of the United States, or taught in therapeutic settings. Also excluded were kindergarten teachers in private schools that do not include other elementary school grades, teachers who taught a limited population of students, such as special needs students only or gifted students only, and teachers who taught a single subject only, such as physical education, art, or music. The critical reflective training of kindergarten teachers was chosen because of a gap in practice in understanding the lack of training early childhood teachers have on critical reflection (J. J. Chen, 2022), and a gap in the literature that existed on this issue (Lenkaitis et al., 2020). Kindergarten teachers were selected to narrow to parameters of the study and support its transferability to other studies on critical reflection (see Ravitch & Carl, 2021).

Limitations

One limitation was my personal bias regarding the benefits of critical reflection. To mitigate the effects of my biases, I used reflexivity to continually acknowledge and reflect on my bias to keep it out as much as possible (see Olmos-Vega et al., 2022). I also had my committee chair review my questions and double-check that bias was not present in the questions (see Lambert, 2012). During the interviews, I took as detailed notes as possible, recorded the interviews for accuracy, and asked participants to review their transcribed interviews to validate the transcripts' accuracy (see Lambert, 2012). I avoided contributing my own ideas during the interviews and in data analysis.

Significance

This study is significant because it helped understand kindergarten teachers' perspectives regarding their training on reflective practice, and the support they feel they need to implement this adaptive teaching practice. Current research on reflective practice in the United States focused on preservice teachers, so the data gathered in this study gave voice to kindergarten teachers' reflective practice, a perspective yet to be explored (see Lenkaitis et al., 2020). The results of this study may lead to changes in how teachers are trained in critical reflection and how they apply that to adaptive teaching practice. Adaptive teaching positively affects student learning outcomes (Guo, 2022), so this study may contribute to positive social change by leading to increased student success.

Summary

In Chapter 1, I described the research problem that kindergarten teachers lack training in critical reflection needed as part of their adaptive teaching practice. The purpose of this study was to explore the experiences of kindergarten teachers regarding the training they received on critical reflection and the support they felt they need to implement critical reflection for an adaptive teaching practice. The study's two RQs addressed the training kindergarten teachers had in critical reflection and how kindergarten teachers used critical reflection to adapt their teaching. Schön's theory of reflective practice formed the conceptual framework. In Chapter 2, I present current research relative to this study.

Chapter 2: Literature Review

The problem that was addressed through this study is that kindergarten teachers often lack training in critical reflection as part of their adaptive teaching practice (J. J. Chen, 2022; Vaughn, 2019). The purpose of this basic qualitative study was to explore the experiences of kindergarten teachers regarding the training they receive on critical reflection, and the support they feel they need to implement this type of adaptive teaching practice. Many recent studies have used critical reflection to determine professional growth of preservice or novice teachers on certain aspects of teaching such as equality and antibias (Shelton & Kaminski, 2023). Few researchers have studied the training on how to cultivate a critical reflective practice once teachers have graduated from university (Lenkaitis et al., 2020). In Chapter 2, I identify specific literature search strategies I used, further describe the conceptual framework, and recount the current literature on critical reflection and adaptive teaching.

Literature Search Strategy

The search pathways that I used to collect literature for the review include the following databases and search engines accessible from Walden University Library: EBSCO Discovery Service, Education Source, and Google Scholar. EBSCO Discovery Service was used to gather research related to critical reflection and adaptive teaching by searching a variety of databases to extract journals, articles, and literature reviews. Education Source was used to acquire educational journals related to the topic of study. The search engine Google Scholar was used to aggregate current research on critical reflection and adaptive teaching. Words and phrases used in the searches were *adaptive*

teaching, adaptive teaching strategies, critical reflective training, critical reflection, early childhood, kindergarten, preschool, reflection, reflective practice, reflective practice theory, reflective teaching, and responsive teaching.

Conceptual Framework

The conceptual framework of this study was Schön's (1983) reflective practice theory. In reflective practice theory Schön suggested cultivating the habit of using critical reflection and experience to solve problems to bring about a desired outcome or environment. To become a reflective practitioner, one must be aware of the intricacies that oppose the skills and strategies of traditional mastery and work to understand the complexity of situations and problems that occur relative to practitioners' values, interests, goals, and purposes. Practitioners use experience and critical reflection to develop a problem set or to set a course of action with a definitive end in mind by carefully cultivating steps and strategies to meet those ends. This happens at separate times during and after a problem arises, is identified, and the necessary outcome framed as a problem set.

Schön's (1987) notion of reflection begins with knowledge in action then reflection in action followed by reflection on action. Knowledge in action speaks to the knowledge gained from experience or training. Reflection-in-action refers to reflection that happens in the moment while completing or accomplishing a task. It is observing what is happening, analyzing how to achieve the desired outcome, and taking actions needed to acquire the set result. Consequently, reflection-on-action speaks of reflecting after the task has been completed by judging and evaluating how actions or words

affected the outcome. Both reflection-in-action and reflection-on-action are important parts of critical reflective practice.

Critical reflection is the cornerstone of becoming an effective practitioner. Not all reflection is critical and there are various levels of reflection (Hong et al., 2023). The four levels of reflection are descriptive, justification, critique, and discussion (Hong et al., 2023). Descriptive reflection is simply stating the materials, actions, or thoughts (Hong et al., 2023). Justification is when a rationale is given for why the materials, actions, or thoughts were chosen (Hong et al., 2023). Critique is when reflections have an evaluation element to them about the materials, event, or action taken (Hong et al., 2023). The final level is discussion, which moves the reflection into an action to initiate change along with an explanation of why the change is needed (Hong et al., 2023). Positive change that is thoughtfully planned and intentional results in critical reflection.

Critical reflection also has three essential elements in the process of becoming a reflective practitioner. The first element is having a strong theoretical foundation and core tenets, which for a teacher means a strong teaching philosophy and beliefs about what a quality teacher is and what they do (Varier et al., 2024). The second element is an examination of a teacher's assumptions, beliefs, and biases in relation to student learning, to provide students with the best avenues for learning to occur (Vesely et al., 2023). Finally, action is taken to transform teaching which results in new awareness and examination (Varier et al., 2024). Then the entire sequence recurs as new situations or problems arise in the classroom and a habit is developed of critical thinking and

reflection. Romo-Escudero et al. (2022) called this process of development a deliberate act of inquiry and noted this is what expert teachers do.

This deliberate act of inquiry connects critical reflection and adaptive teaching. Adaptive teaching's defining qualities are continuous learning, flexible creativity, and innovation in problem solving (Dahn et al., 2022). Teachers who are adaptive engage in critical reflection to observe, reflect on their planning and their in-the-moment decisions, and evaluate those decisions (Davis et al., 2019). The formulation of decisions and initiation of a plan of action are hallmarks of critical reflection. In both adaptive teaching and critical reflection, teachers intentionally construct plans of action to solve issues in the classroom with an intended outcome that is positive for student learning. This is a never-ending process.

Many researchers have used reflective practice theory as the framework for their studies. For example, J. Chen (2022) investigated 1st-year early childhood teachers' use of developmentally appropriate practice during COVID-19. In an article published the following year, J. Chen (2023) analyzed the reflective practices of early childhood teachers' during distance learning of COVID-19 measures. Clark (2020) used teachers' reflections on their experience with play and the effect of reflection on their implementation of play in the classroom. Purcell and Schmitt (2023) found that using reflection-grounded teaching standards supported preservice early childhood teachers' reflective practice and positively affected their teaching practice.

Reflective practice theory was relevant to my study because it is the foundation of the two phenomena being studied, critical reflection and adaptive teaching. Critical

reflection is synonymous with reflective practice theory in that it strives to employ and sustain a teachers' reflective practice. Reflection is an integral part of adaptive teaching because it is essential to the very process of adaptive teaching. Both critical reflection and adaptive teaching are connected to Schön's theory of reflective practice because critical reflection elements are aligned with observing a problem and then working to make a preconceived outcome happen by using the creative and innovative solutions on which adaptive teaching relies. Reflective practice theory informed this study and shaped the interview questions.

Literature Review Related to Key Concepts and Variables

The focus of this review of literature was on employee training as part of general workforce development, employee training in critical reflection, kindergarten teachers' training in critical reflection, the level of adaptive teaching demonstrated by kindergarten teachers, and the connection between training in critical reflection and application of adaptive teaching skills. I focus on describing research conducted in the United States and published since 2020. I begin with an overview of employee training as part of the development of an effective workforce.

Employee Training as Part of Workforce Development

Training in the United States to develop the workforce began in an organized way during World War II when many industries were struggling to meet the economic demands while many people left jobs to fight in the war (Alagaraja & Herd, 2022). On-site training was needed for manufacturing companies and other industries to continue to meet the challenges of a wartime economy (Alagaraja & Herd, 2022). This necessity

transformed the workforce by establishing a new concept of human resource development (Torraco, 2016). The concept of human resource development did not suddenly happen but went through eras in the United States which began with a preindustrial era that relied on the work of slaves of indentured servants and paternalist period where workers were paid for their time and skills but little else (Lloyd & Aho, 2021). In the subsequent bureaucratic era, improved working conditions of all workers and cessation of child labor led to the present high-performance period, in which employees were given creative environments and asked to become part of the process of to transform the company or organization to be profitable and add value (Lloyd & Aho, 2021). Human capital theory furthered this development by giving the perspective of training being an investment rather than a cost for companies and organizations (Torraco, 2016).

Training today begins in organizations on the 1st days of work and includes orientation and onboarding (Blount, 2022). Orientation is when new employees are trained in computer systems, set up email and phone networks, and given a tour of the facilities (Blount, 2022). Onboarding is much more in depth than orientation as it is a process or plan of how an employee will begin working and receive information about any training they will be taking, their role and responsibilities, and the plan to incorporate new employees into the work of the organization (Thrasher et al., 2025). Challacombe (2024) studied the orientation structure of a medical record company and found that when a company had a structured onboarding process it increases the employees' productivity and accuracy when recording records. Challacombe (2024) also stated that most new

employees quit in the first 45 days, which is financially costly for organizations and companies that have invested in onboarding and orientation training.

In some areas of industry, training throughout careers or lifelong learning is fostered to develop the skills or mindset to become an effective practitioner. Beal and Riley (2019) found that training for nurses needed to extend throughout their career, not just the beginning, to fully support nurses and to meet the needs of a changing health care delivery system. Lyons and Bandura (2020) further supported this idea of lifelong learning by explaining that learning models of front-loading knowledge at the beginning of careers are inefficient because many jobs need employees to absorb new knowledge to maintain effectiveness due to technical advances; ongoing training is imperative. Ongoing training is the heart of the “learning organization” and part of the learning organization model (Lyons & Bandura, 2020).

Argyris and Schön (1974) developed the learning organization model. In this model, organizations develop a mindset among managers and employees for improving the company by gathering the skills, knowledge, and experience to change and improve the organization. Senge (2006) furthered this model by adding what he termed five disciplines of organizational learning. These five disciplines are mental models, team learning, personal mastery, shared vision, and systems thinking which strengthen an organizations’ effectiveness, increase individual satisfaction, and enhance employee fulfillment. Attention to these models and disciplines allow organizations to support employees in their learning and to value dynamic teamwork to achieve organizational goals (Springmier et al., 2024). To do this, the leadership of organizations cultivate a

culture and environment inquiry and learning and use continuous training to help support learning for all employees (Senge, 2006).

Continuous training may not only address the changing needs of the industry, but may be related to topics that need to be retained or updated in an organization. For example, a license is required for employees to work as doctors, architects, lawyers, and teachers, and these licenses have mandatory continuing education requirements that must be completed to renew a license and continue working (Milian, 2021). The purpose of continuous training is to ensure professionals follow new practices and deliver high proficiency in their jobs (Milian, 2021). For example, Albelo and O'Toole (2021) studied diversity, equality, and inclusion training of pilots and suggested that diversity training needs to be ongoing to be successful and to cultivate an inclusive environment. Hashem et al. (2021) evaluated the safety training of construction workers and found that long term safety training aided the retention of safety protocols which affected construction workers' wellbeing. Thus, training needs to be continual for employees to learn new skills and remain effective at their jobs (Beal & Riley, 2019).

Organizations that adopt a continuous learning model create benefits and challenges for companies. According to Douglas (2020), training and development programs must cultivate a safe environment for learning and growth to occur, which positively affects employees' attitudes and job satisfaction; with such programs in place employee retention is higher. According to Zajac et al. (2022), organizations that promote and support lifelong learning do well both in times of prosperity and in times of crisis within their industry. Zajac et al. (2022) also stated that organizations that encourage

learning can reinvent and innovate as needed for the future. Hassett (2022) found ongoing training keeps employees engaged at work and can prevent burnout and job turnover. Organizations find benefits in a continuous learning model, but there are drawbacks to this model too. Training is time consuming and costly to organizations (Challacombe, 2024). When an organization is struggling during an economic downturn, training is usually the first budget item cut due to its cost (Akdere & Egan, 2020). Kraiger and Ford (2021) found that training at the beginning of a job takes more time, and some training is wasted when it is unorganized and the objectives are not clear for employees, so learning does not occur.

Specialized training is needed in particular industries to develop employees' effectiveness in those industries (Kraiger & Ford, 2021). For example, Lo (2024) found that librarians need training in artificial intelligence to effectively apply artificial intelligence ethically and responsibly. In addition, according to Frechman and Wright (2023), hospice and palliative care nurses need to develop mindfulness, meditation, and coping skills to become more resilient and to prevent burnout. Occupations regulated by the federal government's Occupational Safety and Health Administration often use mentorships to aid training of employees and encourage collaboration as a team to ensure effective safety measures at work sites (Cuervo et al., 2023). Jurmo (2021) described how unions, employees, and the federal government work together to develop training for bus and train workers. Training effectiveness increases when it is aligned with an organization's mission. Beal and Riley (2019) found that nurses' training was more

successful when the training program was supported and explicitly valued by a hospital's CEO.

Some training is informal and not an event planned by an organization but is learning that happens on the job through experience. Tannenbaum and Wolfson (2022) explained that 70% to 90% of learning happens informally through experience, observations, and interactions with others. Tannenbaum and Wolfson suggested three dimensions of informal learning: seeking feedback and reflection-based learning, vicarious learning, and learning through experimentation and new experiences. Seeking feedback is when employees ask for feedback on their work and performance. Vicarious learning happens through observations, inquiry, or a task is demonstrated. Last, experimental learning is a trial-and-error type of learning an employee can do to understand or practice a skill necessary for their work.

Informal learning happens outside the classroom or formal training sessions (Carliner, 2023). Three defining characteristics of informal learning are that it is learner directed, unstructured, and unplanned (Moore & Klein, 2020). There are many activities that employees use for informal learning, including talking with others, having access to professional libraries, reflecting on how to improve one's performance, and sharing resources (Moore & Klein, 2020). Organizations that create an environment that supports learning provide opportunities for informal learning to occur (Carliner, 2023).

There are many benefits to informal learning such as increased engagement in learning, lower levels of stress, increased knowledge, and savings of time and money (Homrok, 2022). Moore and Klein (2020) found that when employees direct their own

learning, they are more likely to stay engaged and on-task. When learning is informal, there is no deadline to meet or tasks to complete because learning happens at the employees' own pace, which leads to less stress (Moore & Klein, 2020). Using the many avenues of informal learning also reminds employees of concepts they already know and may even increase their knowledge in those areas (Moore & Klein, 2020). Informal learning saves a company time and money because most informal learning is done by collaborating and talking with coworkers and money is not being spent on formal training (Moore & Klein, 2020). To access these benefits of informal learning, employees must be open to change, check and reflect on their learning, and experiment to discover ways to incorporate the new learning (Watkins & Marsick, 2021).

Employee Training on Critical Reflection

Critical reflection training is important because critical reflection allows employees to connect theories or learning to practical applications (Dunn, 2024). Or and Golba (2024) noted that nursing students who applied critical reflection within a group gained more knowledge and exhibited a more professional attitude and practice related to nursing ethics. Another way critical reflection training is essential is it allows employees to identify areas of weakness in an organization as a systemic issue, or a weakness individually, and thereafter become better problem-solvers (Miller, 2023). Miller (2023) described ongoing reflective discussions that analyze learning and experience as the richest kind of learning. B. Johnson (2024) explained that tutors who asked their students to use critical reflection noticed their students were able to identify areas in which they needed more support in their learning. Critical reflection enables individuals to examine

their beliefs and perspectives which leads to the identification of bias or faulty logic (Machost & Stains, 2023).

Critical reflection can happen individually, with a mentor or supervisor, or a group (Hughes et al., 2020). Machost and Stains (2023) noted accountability is fostered through critical reflection, because personal critical reflection develops an open mindset that allows individuals to make sense of learning and experiences. Group reflection is effective in developing problem-solving skills as it allows employees to wrestle with a problem and hear multiple ideas and perspectives on how to solve it (Yang & Choi, 2023). When peer or group reflections are used in training, it further strengthens the reflection because it adds multiple perspectives and fosters accountability (Shaw & Glowacki-Dudka, 2019). Contreras et al. (2020) stated that using critical reflection advanced critical thinking skills and clinical judgements. This increased when a mentor or instructor facilitated discussions that guided key areas for training (Maffucci et al., 2024). Hazen et al. (2020) reported that reflective practice can lessen the negative effects of people who work in trauma related fields because they are able to constructively manage difficult emotions, have increased discernment, and are better able to cope with job-related stressors.

Lack of critical reflection decreases employees' problem-solving skills, reduces their ability to learn from past mistakes, and leads to impaired decision making (Kross et al., 2023). Thus, if an employee does not already possess skill in critical reflection, it could be challenging to develop this skill (Kross et al., 2023). Roessger (2023) stated that there is a need for critical reflection in skills-based workshops because employees often

think that they are more reflective than they are and develop a perspective that they are reflective practitioners before they have become one. Critical thinking and critical reflection are essential skills for employees, but the use of critical reflection has declined in the workplace (Wells, 2023). Wells (2023) attributed this decline in critical thinking to distractions by personal issues, such as concern over the COVID-19 pandemic of 2020, which redirected employees' focus away from problem solving at work to their immediate challenges at home.

Despite the value critical reflection brings to the workplace, few studies describe employee training or engagement in critical reflection. Most critical reflection training happens during an employees' formal education and in certain fields of study such as medical, social work, teachers, business, and coaching (Rogers et al., 2024). For example, Maffucci et al. (2024) found only 55% of nursing students use critical reflection to support their clinical judgments. Preservice teachers often are directed in their classes to engage in critical reflection, however Hong et al. (2023) reported that reflection exercises frequently do not require critical analysis, and do not prompt these students to grow or change their practice. Reichenberg and McVee (2019) found that some experienced teachers were satisfied with their initial reflections and stopped reflection altogether. Most onboarding training activities involve answering questions, filling out paperwork, connecting with peers or a mentor, exploring the organization's mission and vision, and discussing how new hires can develop and grow in their careers, but provide no training in critical reflection (Thrasher et al., 2025). Faller et al. (2020) investigated reflection in

the workplace and stated that reflection is unobservable because it happens in people's heads.

Huffhines et al. (2023) noted that supervisors can model reflective practices during group collaborations and conversations to support critical reflection and critical thinking. Faller et al. (2020) noted that supervisors or managers are the ones to model reflective practice and can be implemented without significant structural changes and can produce thoughtful and long-lasting influences on organizations and human resource departments. Spielberger et al. (2022) stated that when supervisors or mentors modeled or encouraged staff to reflect, their reflective capacity was strengthened, which improved their individual well-being and problem-solving skills. Yang and Choi (2023) described how critical reflection can be developed through reflective writing, including, as noted by Machost and Stains (2023), case notes, professional blogging, detailed lesson plans, as well as daily journaling. Writing reflections as part of training enhances critical reflection by turning experiences, observations, and situations into learning and growth experiences (Adams, 2024). Simulations with reflective debriefing sessions are used in the medical profession to further skills, develop critical thinking, and clinical judgements (Wiltrakis et al., 2024), and portfolios are in preservice teaching training (Cronenberg, 2022). In contrast, critical reflection between an employee and their mentor or supervisor may inhibit employee reflection, learning, and growth if supervisors add evaluations to the reflections or if the employee believes they might (Miller, 2023).

Critical reflection training can be challenging for organizations and companies. One challenge is creating time for employees to engage in critical reflection during

working hours. Social workers stated that reflective writing is time-consuming (Tang Yan et al., 2022). Machost and Stains (2023) posited that many teachers do not continue to reflectively write either after a seminar or course because of the amount of time it takes to physically write reflections. Another challenge is cultivating an environment where an employee feels safe to share critical reflections and research states that the leader or supervisor is the one who cultivates a safe environment in an organization or company (Nicolaidis & Poell, 2020). Nicolaidis and Poell (2020) observed that organizations are caught between two competing imperatives: meeting performance goals and being a safe place for employee growth, learning, and failure to occur.

The method by which critical reflection is assigned may inhibit deep reflection. For example, leaders of medical programs often use structured reflections in their critical training programs that focus on certain aspects of a problem or solution, which limits how students' ability to think beyond preset questions being asked (Or & Golba, 2024). In addition, training in critical reflection may be aversive for some participants. For example, many social work students were found to have a limited capacity for reflection because of the emotional toll they experienced when working with vulnerable clients or clients who have gone through trauma (Tang Yan et al., 2022). Most employers in the United States do not provide training in critical reflection because the challenges they encounter and the difficulty to train and measure critical reflection outcomes, even though critical reflection is important to an effective workforce (Faller et al., 2020).

Kindergarten Teacher Training on Critical Reflection

Critical reflection is essential for kindergarten teachers because they are tasked with introducing children to formal education, and this task is complex and challenging. The responsibilities kindergarten teachers are asked to fulfill revolve around four main areas: academics, assessments, social-emotional, and parent teacher relationships (Metz et al., 2020). Academics such as literacy, mathematics, and science are part of the curriculum kindergarten teachers are responsible for teaching and kindergarten students have diverse learning academic needs (Brown et al., 2021). The skills a kindergarten student needs to master are many, such as cutting with scissors, understanding letters and letter sounds, identifying numbers and counting objects, begin reading simple texts, and retelling stories for comprehension skills (Ansari et al., 2020). Kindergarten teachers' observations and assessments drive instruction and can be predictors of future academic success (Gullo & Impellizeri, 2022). Gibbons and Farley (2021) argued that critical reflection helps teachers deliberate more thoroughly and analyze their instructional strategies and how those strategies affect student learning.

Students come to kindergarten with a wide range of social emotional skills, especially among students who did not attend preschool (Mondi & Reynolds, 2021). Social emotional teaching is vital for kindergarten students because they need teachers to support them in understanding and identifying their emotions, learning how to express them in a healthy way, and emotionally regulate themselves for positive social interactions with each other (Levine et al., 2023). Critical reflection is needed to support social emotional learning because not all social-emotional programs or approaches are

effective, and critical reflection can support teachers in choosing the program and approaches that best meet the needs of their students (Mahoney et al., 2021). Cultivating a partnership with parents (Jeon et al., 2021), teaching colleagues (Dillon et al., 2021), and students (Roubinov et al., 2020) also are essential to teachers' effectiveness.

Moffett and Morrison (2020) stated that expectations of kindergarten children's behavior and executive functioning skills have increased, due to requirements in recent years that children sit for extended periods, work on tasks individually, transition from tasks independently, and follow complex directions and rules. Critical reflection on the part of teachers is needed to improve mastery of executive function capacities by using a variety of strategies to develop these skills, such as engaging in imaginary play scenarios or having student pause and reflect (Doebel, 2020). Critical reflection supports teachers' decision making by permitting analysis of which strategies work best for each individual student (Doebel, 2020). Kindergarten teachers need to engage in critical reflective practice to successfully meet all these challenges and the many learning needs of their students.

Critical reflection is essential to adaptive teaching, in that it allows teachers to adapt their instructional approaches, curriculum choices, classroom management and responses to student behaviors, and interactions with students (Kantawala, 2023). Gahlsdorf and Sherman (2022) stated that critical reflection plays a key role in the evolution or adaptation of teaching practice. These adaptations support students' learning and changes to environments (Xie et al., 2023). Adaptations occur in both reflection on and reflection in teaching because critical thinking and problem-solving skills are

developed from experience, from collective collegial reflections, and from consideration of individual student learning needs, which together develop a critical reflective practice in teachers (Ankrum et al., 2020).

In teacher education programs for elementary teachers, reflection is part of courses and field experiences (Maguire, 2023); however, critical reflection often is overlooked in favor of teaching practical skills (Cho & Johnson, 2020). Gahlsdorf and Sherman (2022) found that development of critical reflection in preservice teachers is more prevalent in small teacher preparation programs that feature few students per course and individual mentoring. Some students are naturally inclined to metacognition which supports the growth of a critical reflective practice (Gahlsdorf & Sherman, 2022). This idea of a natural inclination towards metacognition supports the popular notion in the education realm that good teachers are born not made (Rousmaniere, 2024). While innate disposition for metacognition supports critical reflection, good teaching is developed by both innate characteristics and effective training of teachers (Rousmaniere, 2024).

Much of the research about critical reflection training in early education has been focused on elementary grade teachers, of which kindergarten teachers are a subset. Preservice training of kindergarten teachers and their work in schools mirror that of elementary teachers in general (U.S. Bureau of Labor Statistics, 2024). Research in critical reflection in elementary teachers has focused on preservice teachers' reflective practice (Clark, 2020) but little research has examined critical reflection among teachers in the field. For example, Dexter and Wall (2021) found critical reflection is helpful in reducing elementary school teacher burnout, but their quantitative study included only 46

teachers. Hatch and Clark (2021) found that reflection on instructional design was integral to effective elementary school teaching and adaptation of lessons, but their case study design included data from only five teachers. With so little research on the reflective practices of elementary school teachers, and apparently none on reflective practices among kindergarten teachers, it is hard to determine the extent of their training in critical reflective practice.

Kindergarten teachers further develop their teaching skills and knowledge through professional development such as at teaching conferences and in other professional development experiences. Machost and Stains (2023) noted that some seminars and studies for teachers use critical reflection as a way to continue to develop participants' teaching practice. In many states, school district officials develop PLCs to further stimulate learning for teachers, which can involve reflection but may not (Maddamsetti, 2023). Coaching or mentoring is another way critical reflection can be cultivated, such as when a teacher is coached or mentored by a master teacher who observes them and offers feedback on how to improve (Gahlsdorf & Sherman, 2022). While these professional development opportunities may include critical reflection as an instructional technique, there appears to be little if any training in critical reflection itself, as the central topic of a workshop or program and a cornerstone of effective teaching practice (Roessger, 2023). According to Roessger (2023), a onetime engagement with reflective exercises is insufficient to develop a reflective practice. This lack of attention to critical reflection suggests that it may not be recognized as an important technique for adaptive teaching (Ankrum et al., 2020).

Level of Adaptive Teaching Displayed by Kindergarten Teachers

The term “adaptive teaching” was coined by Hatano and Inagaki (1986), who concluded that domain experts have knowledge of both procedures and concepts in the domain. This term has continued to grow and develop in the education realm to include the many aspects of effective teaching including a teachers’ role in adaptive teaching and the actions they take to adapt teaching (Kavanagh et al., 2020). Adaptive expertise, reflective teaching, and adaptive competence are all terms used to describe adaptive teaching (Xie et al., 2023). Ankrum et al. (2020) defined adaptive teaching as intentionally reconstructing teaching strategies to better aid positive learning outcomes. Van Es et al. (2022) extended the definition to include noticing or being observant to identify what needs to be adapted or changed according to the needs of students. Kavanagh et al. (2020) stated that adaptive teaching involves reflection and creatively practicing discernment and evaluations of learning into teaching responses.

Adaptive teachers are also decision makers who use their pedagogical and content knowledge to support students as they navigate students’ learning development (Suh et al., 2023). Suh et al. (2024) suggested that an adaptive teacher is an inquirer who solves problems to create the best learning outcomes for their students. Thus, the roles adaptive teachers employ are as reflectors (Ankrum et al., 2020), discerners (Kavanagh et al., 2020), observers (Van Es et al., 2022), decision makers (Suh et al., 2023), and inquirers (Suh et al., 2024). The actions that an adaptive teacher takes are many. Assessment was an element of being an adaptive teacher because assessments of student learning indicate a need to change instruction for further understanding of content (Randi, 2022). Vaughn

et al. (2022) stated that adaptive teaching uses perceptions of students, content, and pedagogy to adjust instructional steps to deliberately meet students' social, linguistic, and instructional needs. A. Chen et al. (2024) argued that adaptive teachers are involved in a cycle of give and take with students by receiving feedback from students and then giving them feedback as well to better make instructional decisions that are responsive and appropriate for supported learning. Gallagher et al. (2022) constructed a model that illustrates the give and take cycle in three steps: stimulus, reflection, and response. Using this cycle, an adaptive teacher can adjust instruction to address students' current knowledge of content, change the learning strategies to better fit the students and motivate and engage students in the learning process, and support multiple learning styles of students (Plass & Pawar, 2020).

An adaptive teaching strategy follows a process of noticing a unique situation, reflecting on the situation, and taking action that supports learning (Gallagher et al., 2022). Ankrum et al. (2020) reported that, following reflection in the moment, teachers adapt instruction by testing, clarifying, mirroring, evaluating, building connections, giving feedback, supervising, motivating, and inquiring. Actions may vary by the subject being taught. For example, Gallagher et al. (2022) found that specific elementary teacher adaptations were suited for mathematics, such as constructing connections to learning, changing resources, facilitating classroom discussions, providing specific feedback, questioning of thinking, and intentional selection of teaching tools and mathematics problems. Lammert and Tily (2022) explored elementary teachers' literacy adaptations and found effective actions included noticing the frequency of certain student topics and

questions, embedding assessments into the texts used, intentionally selecting texts to prevent overwhelm, and using multiple texts when responding to students' needs. Suh et al. (2023) described elementary science teachers who used their epistemic adaptive strategies to support student learning of scientific concepts. Vaughn et al. (2020) found that adaptive teaching was vital to effective literacy outcomes for elementary students. These examples illustrate that adaptive teaching was not content specific but was applicable to different learning contexts and students. Adaptations are used in multiple contexts; however, specific adaptations may be best suited for specific content.

Teachers who use adaptive teaching tailor their instruction to meet diverse learning needs and result in improved learning outcomes (Cameron, 2024). Randi (2022) described how adaptive teachers construct learning environments and instructional assignments to support student learning in the present and develop student skills for future learning. Randi (2022) explained that adaptive teachers adjust instruction by deciding whether students need more or less support and more or fewer challenges with the concepts being taught. Suh et al. (2023) noted that elementary school teachers adapt their instruction by understanding the unique learning environment, students' needs, and effective pedagogy to best support each student. Metz et al. (2020) claimed that the responsiveness of adaptive teaching allows for teachers to be observant to the needs of diverse students. Suh et al. (2024) argued that adaptive teaching was equitable, giving access to learning for diverse learning needs and fostering invaluable learning outcomes. Vaughn et al. (2020) further stated that teaching adaptability was essential for changing

instructional strategies. Ankrum et al. (2020) found that teachers who used adaptive teaching strategies had positive learning outcomes for students.

Adaptive teaching supports students' learning needs and outcomes, but it also supports students' capacity to learn for themselves. Plass and Pawar (2020) stated that the goal of adaptive teaching was to support learning outcomes and cultivate students' ability for future learning to occur on their own. Vaughn et al. (2020) reported that adaptive teachers assume students are powerful meaning makers who use the instruction they receive to pursue their own learning; adaptive teachers assume students have agency in how they learn best. Kavanagh et al. (2020) argued that adaptive teachers create learning opportunities in which students wrestle with ideas, texts, and problems to advance their knowledge and to meet personal learning objectives. Adaptive teaching allows students to learn how to learn with supportive teachers to guide their understanding (Suh et al., 2023). Randi (2022) summed this up by stating that adaptive teachers adjust instruction and support students in adapting themselves to reap instructional benefits.

Under adaptive teaching, it was not just the students who developed epistemic knowledge. Teachers who are adaptive understand that learning was complex and dynamic and develop their own knowledge of how learning happens, as part of the process of becoming more effective teachers (Suh et al., 2023). Adaptive teachers cultivate a continuous inquiry stance that hones their epistemic knowledge to further support student learning (Suh et al., 2024). Gazioglu et al. (2022) called this continuous inquiry process of adaptive teaching an adaptive teacher mindset. Suh et al. (2023)

described this adaptive teacher mindset as a developmental process that fosters a capacity or ability to adjust to teaching in ways that can change teaching pedagogy and advance it.

Adaptive teaching competency is the hallmark of effective learning outcomes and teaching quality (Xie et al., 2023). Lammert and Tily (2022) stated that elementary school teachers who were adaptive were the most effective. Lammert and Tily found that adaptive teaching was uncommon because it takes years to develop, and some teachers never develop it even though they have had training in adaptive teaching. Randi (2022) noted that understanding individual student learning needs and balancing them with the overall learning goals of the whole classroom was difficult.

Adaptive teaching and critical reflection are incorporated within each other. Vaughn et al. (2022) found teachers who applied critical reflection monitor and adjust instruction, which leads to adaptive teaching. Gallagher et al. (2022) described reflection as essential to the process of adapting instruction. Schön (1983) asserted that there are two ways to engage in critical reflection: reflection on action and reflection in the moment. Each opportunity for reflection supports a teacher to be more adaptive. In reflection on action, the purpose was to proactively plan learning opportunities that support student learning by monitoring, assessing, and adapting to meet the students' learning needs and content knowledge (Xie et al., 2023). Reflection on action can occur at two different times for teacher, before instruction and after instruction, which Gazioglu et al. (2022) called macro-adaptations. Kavanagh et al. (2022) indicated reflection in action supports adaptations that take place during instruction and calls for pedagogical reasoning to make decisions in the moment that will be the best avenue for each learners'

needs. Gallagher et al. (2022) affirmed that teacher metacognition and critical reflection dictate their adaptative responses to student learning.

Brown et al. (2021) stated that kindergarten students enter school with a wide range of knowledge and learning needs, making each classroom diverse. It was vital for kindergarten teachers to be adaptive in meeting the needs of all students to give each student what they need for future success in school (Suh et al., 2023). Kindergarten students need support to grow academically, social-emotionally, and progress in their executive function skills, which adaptive teachers can support by understanding each students' areas for growth and using their adaptive strategies to support this growth (Metz et al., 2020). To become an adaptive teacher, individuals must develop skill in critical reflection (Gahlsdorf & Sherman, 2022). With few studies about critical reflection in education, many that only focus on preservice teachers' reflective practice (Clark, 2020) or small sample studies of elementary teachers' critical reflection (Hatch & Clark, 2021), research on kindergarten teacher training in critical reflection was needed to explore experiences of kindergarten teachers regarding the training they receive on critical reflection, and the support they feel they need to implement this type of adaptive teaching practice.

Summary and Conclusions

In Chapter 2, I described how I gathered research by listing strategies and terms used to find studies and professional articles. I also synthesized the conceptual framework of Schön's (1983) reflective practice theory. Next, I delved into current research on employee training in general, employee training in critical reflection,

kindergarten teacher training in critical reflection, and the level of adaptive teaching displayed kindergarten teachers. I found no research in critical reflection among kindergarten teachers or their training in critical reflection, suggesting both a gap in practice and a gap in the literature. In Chapter 3, I describe the research design and rationale for using this design, my role as the researcher, and the methodology I employed. An analysis and evaluation of the trustworthiness and ethical procedures are described.

Chapter 3: Research Method

The purpose of this basic qualitative study was to explore the experiences of kindergarten teachers regarding the training they received on critical reflection and the support they need to implement critical reflection for an adaptive teaching practice. In this third chapter, I outline my basic qualitative research design and explain the rationale for using this design. Next, I describe my role as a qualitative researcher and the methodology by which I conducted my research. This methodology description includes how participants were selected, the instrumentation used, the procedures for recruitment, participation, and how I analyzed the data. Trustworthiness and ethical procedures are also described in this chapter.

Research Design and Rationale

Two RQs underpinned this study:

RQ1: How do kindergarten teachers describe their experiences with training they have received in critical reflection?

RQ2: How do kindergarten teachers describe the support they need to implement critical reflection as part of their adaptive teaching practice?

The phenomenon that was investigated in this study was critical reflection training of kindergarten teachers and support needed to translate critical reflection into adaptive teaching practice. A basic qualitative research design was used to explore kindergarten teachers' training and experiences with critical reflection and adaptive teaching. This type of research is flexible and responsive (Ravitch & Carl, 2021) to navigate the unknown aspects of critical reflective training of kindergarten teachers and

their adaptive teaching practice. The aim of the study was to ascertain kindergarten teachers' perspectives regarding training in critical reflection and how they use critical reflection to be adaptive in their teaching; using a qualitative approach allowed these topics to be examined.

Qualitative researchers use a structured approach to interpret the ways humans perceive phenomena and make sense of it (Ravitch & Carl, 2021), which was the purpose of this study: to make sense of kindergarten teachers' perspectives of training in critical reflection and adaptive teaching. By employing a qualitative approach, I gathered data to answer the two RQs concerning kindergarten teachers' voices about critical reflection and adaptive teaching practices. Qualitative studies give rich details about phenomena to give deep explanations (Burkholder et al., 2020). Using a basic qualitative design with interviews supported the purpose of the study, which was to explore the perspectives of kindergarten teachers regarding training in critical reflection and adaptive teaching.

Role of the Researcher

My role as a researcher was as an observer and participant in the study. I observed while interviewing the participants in the study and took notes for accuracy. I participated and engaged in an assortment of activities such as build rapport with participants, actively listening and probing during interview, conducted and lead interviews with participants, and undertook a reflexive stance with continuous reflection to combat bias and ethical considerations throughout the data collection process (Ravitch & Carl, 2021). At the time of this study, I was a kindergarten teacher at a small, private school in Alaska, but for over a decade I had taught children ages 2 to 4 years old at international schools outside

the United States. Critical reflection was instrumental in my growth as a teacher to learn how to teach not only young children but also dual language learners. When I began teaching overseas, this was the first time I taught children as young as 2 years old because I had been a middle school language arts, social studies, and science teacher previously. After coming back to teach kindergarten in the United States, critical reflection was essential for me to learn how to teach young, native English speakers and meet the diverse learning needs of my classes in comparison to the classes I taught internationally. The 3 years that I worked in kindergarten in the United States were a challenge because I had many students who struggled with behavior, emotions, and academics. These students were from a variety of socioeconomic backgrounds and ethnicities, which brought wonderful things and challenges to teaching.

There may have been bias on my part as I believed that critical reflection is a key element in becoming an effective kindergarten teacher. To counteract this bias, I was reflexive throughout the research process by carefully crafting interview questions that are open-ended for interpretation from participants, being neutral in my interviews by asking clarifying questions, and when analyzing the data to look at different perspectives (Olmos-Vega et al., 2022). In addition, I ensured I had no existing personal or professional relationships with any of the participants in the study. I had no prior contact or relationship with them. An ethical issue that I took into consideration was confidentiality of the participants by using codes in place of names throughout the interview process and data analysis (see Ravitch & Carl, 2021).

Methodology

Participant Selection

The population of interest was current kindergarten teachers who teach in a major city in the northwestern United States, and who had taught more than 1 year. Participants were selected by purposive sampling (see Burkholder et al., 2020). Purposive sampling enabled me to have a sample population based on the purpose of my study and was representative of the defined attributes of the population. By using purposive sampling, the sample was representative of the characteristics of interest in the study, which allowed rich data to be obtained (see Burkholder et al., 2020). Teachers who participated in the study met these criteria: were currently working as a kindergarten teacher in a public elementary school in the focal city and had taught for more than 1 year. According to its website, at the time of the study, the target school district comprised 57 elementary schools, employing 77 kindergarten teachers. Teachers' email addresses were publicly available on individual school webpages on the district website.

I used the email addresses of kindergarten teachers to send prospective participants a recruitment flyer. The recruitment flyer included information about the study, the criteria for participation, and contact information on how to volunteer for the study. As individuals responded to the recruitment flyer, I emailed them a consent form, which detailed the study and reiterated participant criteria. Teachers who wished to volunteer replied via email with the words "I consent." I scheduled and conducted interviews using Zoom or by telephone, according to each participant's preference.

I intended to interview 10 to 12 kindergarten teachers. Hennink and Kaiser (2022) found saturation in qualitative studies that used interviews was reached with between 9 and 17 participants. I was able to recruit only seven participants, despite resending emails as before. I concluded recruitment after 3 months. I interviewed the participants in the order they responded to the consent form. The limitation of such a small sample is discussed in Chapter 5.

Instrumentation

I collected data using a set of 10 open-ended interview questions that I created to help answer the RQs and meet the purpose of the study (see Appendix). The first two interview questions asked about critical reflection and the participants' experience of it in their everyday lives. Question 3 asked specifically about how they used critical reflection within the classroom. The fourth question asked about the training they received in critical reflection in courses they had taken or professional development. Questions 5 and 6 asked participants to describe their critical reflection practice at the beginning of their teaching career and then as an experienced teacher. Question 7 explored how kindergarten teachers used critical reflection to make adaptations to their teaching. Questions 8 and 9 focused on the support participants needed to apply critical reflection consistently and the challenges they encountered using critical reflection. The last question, Question 10, allowed the participant to give any other thoughts they had on critical reflection and adaptive teaching that they had not expressed yet. Because I conducted semistructured interviews, I used follow-up questions to probe for more

information and to clarify my understanding and ensure accuracy in interpreting participants' words.

The interview questions were reviewed by a person who holds a doctorate in early childhood to ensure the validity of the questions for meeting the purpose of the study and interview questions were aligned with the purpose. This process was a proactive step to avoid any misunderstanding or miscommunication in each interview. This person's recommendations included giving participants a definition of critical reflection and having them reflect when they have used it in their lives. They suggested starting using questions that include all circumstances participants have used critical reflection and then to ask about more specific instances of using it in the teaching and the training they have received on critical reflection to better support the first RQ. Another helpful suggestion was asking participants to compare how much they used critical reflection at the beginning of their teaching career to their current use of it. To better support the second RQ, they helped me formulate a situation where they could use critical reflection to adapt their teaching to help participants describe their adaptations in their teaching practice. They also recommended that I have each participant evaluate the importance of critical reflection and the training they have received. All of these suggestions and recommendations helped me hone better open-ended interview questions, so the interviews were more likely to give me in-depth, rich data for analysis.

Procedures for Recruitment, Participation, and Data Collection

I began by applying for approval to the Walden University Institutional Review Board. After I received approval (no. 02-06-25-103870), I began recruiting participants.

To recruit participants for the study, I used the list of elementary schools in the target school district to find the publicly published emails of the kindergarten teachers. Kindergarten teachers were sent an email message containing a recruitment flyer that described the purpose of the study and provided my contact information to ask questions about the study or to volunteer to be a participant. I emailed respondents the consent form and waited for them to respond with “I consent.” When consent was given, I set up interview times by telephone or Zoom.

As interviews were scheduled, I began interviewing participants. One participant chose to interview via Zoom while the others chose to have telephone interviews. Audio recordings were taken by audio recording on a cell phone by pushing the audio record button after calling a participant which automatically told the participant that the call was being recorded before it began recording. For the Zoom interview the audio recording function in Zoom was used to record the conversation and a reminder that the interview was recorded was stated before it was recorded. Each interview was 30 to 40 minutes long. To transcribe the interviews, I used the app, Kaltura, an automatic transcription service. After it had been transcribed by Kaltura, I listened to the interview while reading the transcript to ensure accuracy. The transcription process took 1 to 2 days to complete. Each participant was emailed a copy of the transcript to review for accuracy.

Data Analysis Plan

I emailed each participant their transcript to review and verify its accuracy. If there was no response after 1 week, I assumed that the participant did not wish to make corrections. Each transcript was given an identifier, such as P1, P2, and so forth. To begin

data analysis, I read the transcripts, notes, and reflections several times. Ravitch and Carl (2021) described quality data analysis as iterative and ongoing throughout the analysis process. By reading transcripts multiple times, I was able to grasp recurring themes, accurately interpret meanings within interviews, and understand nuance and detail that might be missed with one read through (see Ravitch & Carl, 2021). I then uploaded each transcript to Dedoose to help me analyze the data from each interview. Then I identified codes in the transcripts that indicate ideas relevant to my study.

After coding all the transcripts, I reviewed the data. By reviewing all the data at one time, I was able to uncover patterns or themes in the data (see Ravitch & Carl, 2021). I also looked at codes and combined any that are similar or change codes for more precise language in words and phrases. The second cycle of coding encompassed descriptive or narrative coding to find similar responses from participants (see Burkholder et al., 2020). Using these similar responses, I grouped codes into categories according to commonalities. Themes were constructed on the third cycle of coding to find patterns within the categories (see Burkholder et al., 2020). Dedoose was used to help me organize and analyze the data from the transcripts. I associated these themes with the two RQs posed in the study.

I was alert to discrepant cases if a participant's responses to the interview questions did not fit into any themes or categories or did not align with most sources (see Ravitch & Carl, 2021). I intentionally looked for discrepant cases to help me assess the robustness of the findings (see Ravitch & Carl, 2021). I found no data that appeared to be discrepant.

Trustworthiness

Trustworthiness is how qualitative studies are measured to determine the confidence or validity in sources used in a study and the methods that were used to gather them (Burkholder et al., 2020). There are four components of trustworthiness: credibility, dependability, transferability, and confirmability (Burkholder et al., 2020). To establish trustworthiness, I engaged in creating credibility, dependability, transferability, and confirmability.

Credibility

Credibility is the amount of confidence a researcher has in the veracity and accuracy of the findings (Burkholder et al., 2020). This means the findings of the study are believable and accurately portray the data collected (Burkholder et al., 2020). Credibility is supported when a researcher accurately describes the study and findings by giving as much supporting evidence as possible for a reader to evaluate how they represented the data to fit the scope and parameters of the study (J. L. Johnson et al., 2020). Some strategies to do this in studies are to conduct a steady involvement in the study, consistent observation, peer debriefing, subjectivity, member checking, triangulation, or reflexivity (Burkholder et al., 2020). I supported credibility by having participants validate their responses by giving them transcripts of interviews to check for accuracy and peer debriefing to curtail any bias, errors, or oversights in my data interpretations. Another way I built credibility was to also use reflexivity throughout the data collection and analysis by keeping a reflexive journal. Triangulation was used as

well by using data collected in interviews from multiple sources to support the themes that arose.

Transferability

Transferability is defined as the way the research can be applied to wider contexts while still sustaining the conceptual specific richness of the qualitative study (Burkholder et al., 2020). Transferability is supported when a researcher gives a rich, detailed description of the study and the reader can apply it to their specific situation or other circumstances (J. L. Johnson et al., 2020). I supported transferability by using detailed and robust accounts of the interviews to support the analysis and to aid others in determining if my findings are applicable to their own contexts.

Dependability

Dependability is the strength of data in regard to data collection and analysis by using a logical methodology to collect data which aligns with the RQs of a study (Burkholder et al., 2020). This happens when a researcher relates in great depth the methodology of the study, so other researchers can replicate it (J. L. Johnson et al., 2020). Inquiry audit and triangulation are two ways to attain dependability (Burkholder et al., 2020). I supported dependability by creating an audit trail using detailed explanations from the beginning of the research process to the end. This allowed the reader to see that this study is replicable in other studies. I also employed triangulation in the form of multiple interviews and used these multiple sources to support the claims in the data analysis.

Confirmability

Confirmability can be defined as how a researcher acknowledges and explores their biases and how they mediate those to remove them as much as possible by using a structured process (Burkholder et al., 2020). This is when a researcher gives evidence that the results of the study reflect the data collected from the study and not their biases or opinions (J. L. Johnson et al., 2020). One way to reach confirmability was by performing a confirmability audit by using reflexivity (Burkholder et al., 2020). I did this by developing a concise coding system and maintaining detailed records of all steps taken in data collection and analysis including notes, memos, and rationale for coding. I used reflexive journaling after all interviews and in the data analysis process. These are the strategies I used to attain trustworthiness in my study.

Ethical Procedures

I applied to the Walden University Institutional Review Board for permission to conduct this study. All recruitment materials and processes as well as processes for data collection were reviewed and approved before I began recruitment of participants. My recruitment flyer and the consent form included clear, concise words that accurately portrayed the study's purpose and procedures of how data were collected, so potential participants fully understood the study and what they were agreeing to do. No coercion of any kind was used to recruit participants. Participants' identity was kept confidential and I was careful to avoid including in the study information by which their identities could be deduced. Confidentiality was supported by using pseudonyms for each participant in the form of alphanumeric identifies such as P1, P2, and so forth. I did not discuss any

information about participants with anyone except members of my dissertation committee.

I kept all data secure throughout the research process, on my password-protected personal computer only accessed by me and in a private location in my home office. Any hard copies of data used were locked in a file when not in use. The committee members and I were the only people with access to the transcripts. These files will be stored this way for 5 years and then will be permanently deleted by digitally wiping files from my computer and shredding the hard copies.

Summary

In Chapter 3, I outlined the basic qualitative research design and stated the rationale for this type of methodology was based on my intention to explore the experiences of kindergarten teachers regarding the training they received on critical reflection and the support they feel they need to implement critical reflection for an adaptive teaching practice. Next, I defined my role of an observer and participant as a qualitative researcher and the methodology of how I conducted my research by using semi structured interviews of seven public kindergarten teachers. The methodology description included participant selection using purposive sampling and the instrumentation of the interview questions with detailed statements of how each question was connected to the RQs. I also outlined how I recruited participants by emailing a recruitment flyer to teachers who fit my study criteria. I explained how I analyzed data using Dedoose software to code data using the a priori and axial methods. Trustworthiness was established through strategies that support credibility,

transferability, dependability, and confirmability. Ethical procedures were also recounted to include obtaining institutional review board approval and describing how the participants' privacy was safeguarded throughout the data collection process and the analysis phase of the study. In Chapter 4, I present the results of my study.

Chapter 4: Results

The purpose of this study was to explore the experiences of kindergarten teachers regarding the training they received on critical reflection and the support they feel they need to implement critical reflection for an adaptive teaching practice. The two RQs that underpinned this study were focused on the training kindergarten teachers have received in critical reflection and what supports they feel they need to use critical reflection to become better adaptive teachers. This chapter includes descriptions of the setting, data collection and analysis processes, results, evidence of trustworthiness, and a concluding summary.

Setting

I conducted this study in a major city in the northwestern United States and included current kindergarten teachers within one public school district. Each participant had taught for more than 1 year. I was unaware of any personnel or organizational changes within the school district that could have influenced the participants or their experiences, which could have affected the interpretation of the study results. Data collection was not affected by weather or disruptions in the community.

Data Collection

I began collecting data by interviewing participants. It was my intention to interview 10 kindergarten teachers; however, only eight people responded to my recruitment emails. Of these, only seven participants were interviewed as one participant had a scheduling conflict with the time we had set and then could no longer participate in the study. I collected data from seven participants at the conclusion of recruitment.

Recruitment may have been impeded by timing because it was the end of the school year and that is a busy time of year for teachers. The possible effect of interviewing fewer teachers than my intended minimum is discussed in Chapter 5.

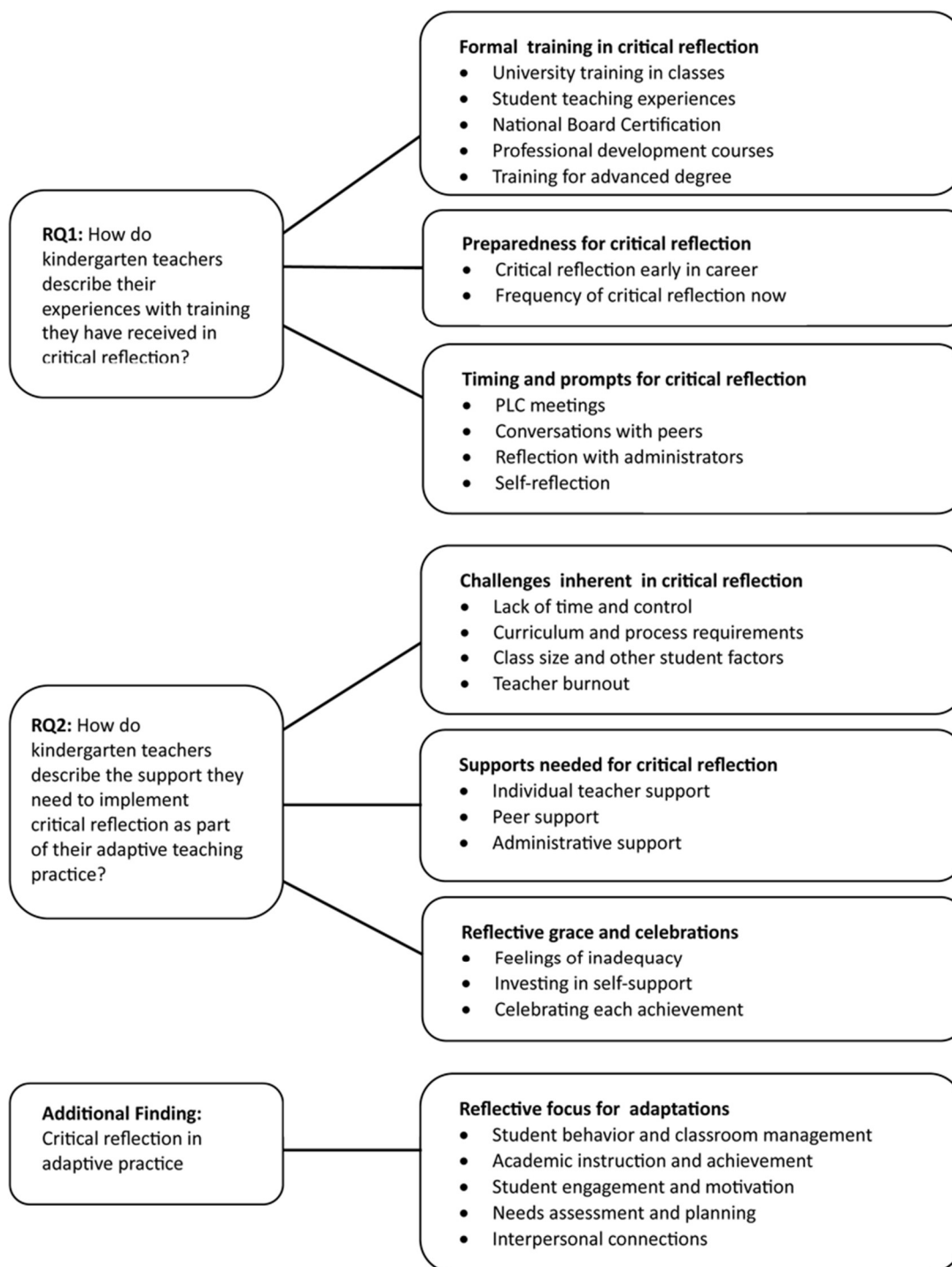
Most participants chose to interview by phone, except for one who chose Zoom. All interviews were conducted in the privacy of an office. The phone interviews were recorded by the record function on the cell phone, and the Zoom interview was recorded within that application using audio recording only. I conducted interviews for a little over 3 months. All the participants were women kindergarten teachers according to the titles they used in the interviews when describing stories of students using their teacher names. Most of the teachers were veteran teachers with two commenting on how they were retiring this year after over 20 years of teaching. One participant spoke of her experience as a kindergarten teacher in a language immersion school, which has the students completing school half the day in English and the other half in French. There was one unexpected circumstance during the interview process. Each interview using the phone went well with no problems in recording, however, one interview was interrupted with an announcement from the school secretary. Fortunately, it was towards the end, so the participant responded quickly and then finished the interview. The Zoom interview worked well with no issues in recording.

I uploaded the audio files of the interviews to the web-based app, Kaltura, which transcribed them for me. I accessed Kaltura from Walden University. I created a Word document for each individual interview and fixed minor mistakes as I listened to the audio files to ensure accuracy. After this was completed, I emailed the transcript to

participants for them to check for accuracy. No participant replied with any corrections, so I used this final transcript for data analysis.

Data Analysis

I began my data analysis by uploading the transcripts to Dedoose and reading each transcript multiple times along with notes I took during the interviews. The data analysis method employed was the a priori and axial methods. After this step, I then extracted codes within the transcripts and found 253 codes. Next, I organized into categories which totaled 23 categories and combined any codes that had similarities and changed codes for more concise language and word usage. I then began a second cycle of coding specifically looking for descriptions that had similar responses from participants and grouped them according to commonalities, which totaled seven. These categories were formal training in critical reflection, preparedness for critical reflection, timing and prompts needed for critical reflection, challenges inherent in critical reflection, supports needed to critical reflection, reflective grace and celebrations, and reflective focus for adaptations. During the third cycle of coding, I searched for patterns to develop the themes and connected these themes to the two RQ of the study. Themes categories emerged for each RQ, and one theme was an additional finding not related to either RQ. The final data collection results are illustrated in Figure 1. Interview response demonstrated that all participants were consistent with their experiences with each RQ, which indicated no discrepancies.

Figure 1*Themes With Associated Categories and Research Questions*

Results

I present the results of the data analysis by RQ, with one additional finding also presented. For the first RQ, I explored the themes of formal training for critical reflection, preparedness for critical reflection, and timing and prompts for critical reflection. The second RQ's themes were challenges inherent in critical reflection, supports need for critical reflection, and reflective grace and celebrations. I also had an additional finding that did not answer either of the RQs and fit under the theme of reflective focus for adaptations.

Results for Research Question 1

RQ1 was, How do kindergarten teachers describe their experiences with training they have received in critical reflection? Three themes are associated with this question: formal training in critical reflection, preparedness for critical reflection, and timing and prompts for critical reflection. I will present participants' thoughts relative to each of these themes.

The first theme, formal training in critical reflection, developed when several participants spoke of their experiences in completing their undergraduate degrees critical reflection included in classes, practicum experiences, and student teaching. P1 described how in practicums she "had to write down how a lesson went and what we would change" and mentioned how she had to write her reflections for assignments which involved reflecting on how the lessons went and what she could improve. P3 noted this too, saying. "They would have us write papers and stuff like that or you know what you could change, what you could do better." P7 reported,

I had to do a daily journal. So, every day I had to write about what I was teaching in the classroom, how my lessons were going, any burning questions I had, so I had a daily diary that really helped me, you know, have those reflections.

P3 indicated that she developed critical reflection in her formal training through oral reflections with a professor or a host teacher within practicums, which allowed for more critical reflection. P3 said, “After maybe teaching a lesson like in my practicum and stuff like that, they'd say what could you do better how would you feel about this and really taking that time to reflect made it much more beneficial.”

Participants’ experience with critical reflection was mixed during their student teaching. P5 noted, “I don't remember doing it. Student teaching was not the most positive of experience.” P6 stated,

I do remember having conversations with my master teacher at the time. And I'm going to make an assumption that we did discuss how things went and how they could, you know, what I could change to make it better or more effective. But that's really just me making an assumption that we had conversations because ...it's hard for me to remember.

In contrast, several participants spoke about reflecting with student teaching mentors or the master teacher in whose class they were teaching. P1 said, “When I was in the classroom under a master teacher we would sit down, and we would reflect probably daily just to see how things were going.” P3 described her experience in student teaching reflection, saying, “Yes, just through my host teacher, though. I think we also had to write papers on it, like, literally, how did that lesson go? What did you learn from that?”

and “how do you think this went?”. P4 indicated that shared reflection and feedback were part of developing teaching skills, stating, “Based on feedback from my host teachers and taking that feedback into account when, you know, moving forward and continuing to do lessons.” P7 reported, “I had a mentor [professor] in my student teaching who came in and asked me questions and made observations of me and you know asking me well why did I do this or why did I do that.”

Participants noted that in-service professional development in critical reflection has been lacking. P3 noted, “I honestly can't even remember the specific trainings. I mean, [school district] sends us to different trainings. We've done different online training. But I can't think of a specific one that was specifically just for critical thinking.” P4 indicated,

So, I can't say that I've taken a course on critical reflection specifically. However, I think there are a lot of personal or professional developments that we do that kind of take you back to the basics where it reminds you of some of the foundational things.

P6 indicated that reflection is usually included at the end of in-service training, saying, “At the end of the training, they ask you to reflect upon what you got from whatever the training was about, but it wasn't necessarily specifically about reflection.”

P4 provided an example of critical reflection inspired by a science of reading course and how it refreshed her phonics instruction:

It really gave me a chance to reflect on my practice because the science of reading course went through many things that I hadn't seen since my undergrad, which

was 20-ish years ago. And so, I didn't even realize that there were some things with teaching phonics and phonemic awareness that I was rusty on.

P6 noted,

I just think [critical reflection is] something that as a teacher you're constantly doing, but I don't remember specific trainings on it, not even really specific [professional development] on it, just that we do reflection, but I don't really feel like there's been a specific training on that by itself that I can recall.

Several participants reported that efforts to earn extra certifications and graduate degrees often included critical reflection as a training element. P5 indicated this was the case when she earned National Board Certification:

The entire process [of National Board Certification] makes you stop and think about yourself and what role you play in the classroom. And it makes you reflect on what impact you have and where it's going for your kids. And so that entire process of videotaping myself, analyzing my classroom, analyzing myself on video and in writing it all up was a huge, like, reflection on myself. And it kind of taught me how to reflect on what lessons I'm teaching and what impact they're actually having for in the future.

Two participants related how they developed their critical reflective skills through their masters' programs. P5 said this about her administration master's degree program:

During the principal one, there was a lot of reflection. You had to analyze situations. You had to reflect on how you would handle the situation, how you

could have handled it better, especially when it pertained to safety or behaviors of children within the school or dealing with difficult parents.

P4 noted, "I would say for the most part, doing my master's degree, all of my practicum classes, and then rolling into student teaching, there was a lot of reflection."

The next theme in formal training in critical reflection was preparedness for critical reflection. Several of the participants responded with how unprepared they felt to use critical reflection. For example, P1 stated, "I was not. I was overwhelmed." P3 said, "I don't think I was near as prepared as I am now." P3 elaborated on reasons why she felt unprepared:

I think it also comes with experience, and I was probably so naive in the beginning about the whole experience of teaching. The whole, you know, they didn't teach you that you're going to be a counselor, you're going to be you know a mom, you're going to be all of these different things for these kids. Their safe spot. They're everything. So, like, trying to just teach a lesson, but then still connecting with the kids, that's really difficult. And I think I've mastered that now. But back in the day, I was very naive to it. I might have been able to look at a lesson, but I couldn't see the whole picture, if that makes sense.

P3 further stated,

I think I was so exhausted in the beginning and just trying to take everything in and it was really hard to go back and like, you know, you're just trying to push through and make sure you're getting everything, but you really don't have that reflection time or the time and the effort to put in it because it's such a big job.

P5 also described reasons why she felt unprepared, saying,

I was not (prepared). Then I got hired to teach kindergarten on the east side of town and I knew nothing about kindergarten. I mean there I was. I walked into an empty classroom I didn't even know where to start, let alone there was no curriculum to teach. And so, I was working closely with the neighbor teachers trying to figure this out. And I think it was just like survival mode. How can you critically think about it when you don't know what you're doing? If that makes sense.

P6 agreed to feeling overwhelmed and summed it up by saying,

I was not very prepared. It was mostly just like, okay, how do I do just the day-to-day stuff? And that has taken many years to get to the point of thinking about what I did and how can I go back and change it, what worked, what didn't work...It was more about just classroom management and getting through curriculum. That's what I recall. I feel like it took quite a few years before I got to the point of really thinking about reflecting on the lessons or just daily interactions, whatever it is...You know how did things go and what do I need to do and maybe just more in regards to how the day flowed or more with management more so than academics. I think it was more about the environment and the classroom management at that time more than probably the academics at the beginning and it was you know I'm sure at the end of each day I probably thought about things but not really dive deep into it at the very beginning.

A few participants spoke of being moderately or very prepared in being able to use critical reflection early in their careers. P4 remarked on feeling a little prepared based on her experiences before her 1st year of teaching and being reflective with her colleagues and receiving feedback and suggestions from them, noting,

I started teaching at 24. I had lots of experience with kids, but I was hired into a behavior program with kindergartners. So, I heavily relied on the more senior staff that were in that program to help, to help me transition into that role. And in doing so, they would give me feedback. And I feel like I did a really good job reflecting and adjusting the things that I was doing in accordance to that feedback, simply because the people that I worked with. I was very privileged in that they were very experienced, very skilled in the area of behaviors. So, their feedback and their mentoring allowed me a lot of time and space to reflect on how I could grow as an educator and how I could grow with my students and their needs because their needs were ever changing, being students with behavior.

P7 agreed with P4's views on feeling prepared and attributed it to her subbing experience indicating,

I felt prepared. I also think having like I took a year of just subbing in the school district, so I got to be in all sorts of classrooms and different situations to really see like what I liked and what I enjoyed. And being in all of the diverse situations I was in made me really use those reflective skills. So, I had a lot of time to practice it before I had my own individual class.

P7 also spoke of another advantage, possessing an innate reflectiveness in preparedness saying,

This might sound odd, but I got an award in college for like inclusive and reflective practices, so I felt very prepared. I think I've always you know I love learning, I love growing, and I know a good teacher reflects often and it's not you know something that's a negative thing or a punishment. It's really all about growth and being the best, you can be. So, I felt prepared, but I feel like I'm also one of those people who really saw the value right away and like to do that sort of thing.

P2 agreed with the idea of teachers being naturally reflective, stating, "I think it comes naturally to some of us." P4 suggested, "It's just something that I innately do. I think it's just built into my processing." P2 summed up innate reflectiveness by saying, "It comes from inside yourself. Because when I'm not reflecting on my teaching, then I'm not giving my students 100%."

Another category in the theme of preparedness for critical reflection was the frequency of using critical reflection. Some participants reported that critical reflection is a daily occurrence. For example, P1 indicated, "Like, I'm constantly thinking, like, how's how I do a better job? A thorough job of teaching....So it's a daily thing, multiple times during the day, depending on the week." P2 agreed, stating, "I use it every day. Every day I self-reflect....I think I do it every single day." Some participants commented that they practiced critical reflection more than once a day. P3 described how she reflected multiple times a day and used technology to reflect with her teaching partner,

“Absolutely. Hourly, probably. Even through text, even through email. Yep, all the time.”

P7 also noted that she engaged in critical reflection throughout the school day with her students:

Gosh I would love to say a hundred percent of the time I'm always doing it but of course I am human, and I you know maybe not doing it all the time but I really try to just infuse it in all of my lessons I mean I'm very explicit with my students about you know okay how did that math lesson go like are we thumbs up are we all feeling successful are we still needing supports.

P4's response is a helpful distillation of participants' views on critical reflection as a daily teaching practice: “I would say there's... no time where it's not happening in some capacity even in the back of my mind.”

The last theme that emerged regarding the formal training of the participants was timing and prompts for critical reflection. One common observation had was that all of the participants used critical reflection as part of their weekly PLC meetings. P1 said,

Well, now we have PLCs, so we're looking at our instruction and how we can teach things and how we can do things better for students ... what differently do we need to do for those students so that they do understand. Like how can we approach it in a different way and continue with that... Are you doing anything differently? What can, you know, talking with my teaching partner like, how could we do this better or differently, not maybe, not necessarily better.

P2 spoke about PLCs in this way:

We are practicing it in our PLCs ... It makes a teacher, it's like, did I do everything I could for my students or not? Because when I'm not reflecting on my teaching, then I'm not giving my students 100%.

P3 described PLCs as follows:

We meet with our colleagues, and we go over all of our data on Monday mornings. We go through all the things that we can do better. So, we're really having a lot of critical [reflection] time for that.

P4 described PLCs, saying, "Our school district is doing professional learning communities on Mondays and that's a time where we spend about an hour and we are consistently going over data."

P5 indicated how supportive she felt in PLCs by stating,

I have a pretty supportive kindergarten team up here. And so, when we meet, I mean, we can laugh about the mistakes. And then they're like, oh, but did you think about trying this kind of thing? And it's like, oh, yeah, I should try that next and make changes that way.

P7 concurred about being in a supportive learning community,

PLCs, which are great, like, learning communities that it's just a time when us teachers can get together by grade level and really dive into the data, because we don't really always have that time, and looking at our mapping and looking at, you know, what pieces are actually really important for us, and then being able to apply that reflection piece onto our teaching practices to help students be more successful.

P6 expressed a desire to be more engaged in critical reflection in PLCs and suggested this be more of an emphasis in them,

And then we have weekly PLC, but sometimes we talk about the reflection, but sometimes it gets focused more on just the data and where are we at. You know, there's not always, I don't feel like there's as much reflective conversation. That would benefit during that time period.

Peers were a key factor when participants applied critical reflection outside of the PLC meetings. Each participant spoke of the times that they spent doing this with teaching partners or team members in particular. P3 said this of her teaching partner and teaching team:

I have a phenomenal group of teachers that I work with. So, we're always helping each other and giving each other ideas...My teaching partner and I are constantly, you know, rotating our win groups, looking at we do weekly assessments on all of our, like, reading program.

P4 stated,

So, I do utilize my teaching partner pretty heavily, and we collaborate to see what changes or adjustments we could make in our planning to engage students more with the topic that we're supposed to teach....Your students are getting this and mine aren't, what are you doing differently?

P5 agreed:

Yes, I meet with the neighborhood kindergarten teacher and I meet with my language partner and we talk about like what we're doing, the techniques that we're doing, what's working, what's not working. We meet quite a bit.

P6 expressed feelings of isolation in teaching but how her colleagues help with that,

I do that with my teaching partner all the time and then I have a good friend that that has taught for the same amount of time as me and we often talk about challenges and give each other ideas and support and that's really helpful. And then with my own teaching partner if we have we both are comfortable talking to each other about if there's something going on and just getting a different perspective about how to approach something. It's very important and being a teacher we sometimes feel so isolated, so it's really important to have good support with other teachers.

P7 indicated how supportive her teaching partner is with critical reflection:

We're super supportive of one another I have teachers who come to me who you know have are struggling with students who have behaviors and I go to my other team teachers to you know talk about those students you know who I need support with also whenever I'm looking to provide some enrichment to like certain students are excelling and may be ready for some first grade work I can go to them and say 'hey, are these like kinds of do? You have any material like this that I could use or is, you know, this something you guys are gonna be exploring in first grade? Is this you know gonna be redundant?' so we definitely try to support

each other and you know, we all have an open door policy where we're just, we're here to support one another. And I really love that about our community here.

Another point P7 noticed was how she benefitted from her colleagues' professional development in instructional coaching stating,

I had a colleague who started taking a course basically on like coaching and you know critical reflection and so it was just something her and I did in our free time because we she needed the practice and I knew my teaching and my students would benefit from it and so she had this like conversation map that we used to like identify areas of success and areas where I felt like I needed more support or things needed to change.

P4 summed it up on the benefits of applying critical reflection with peers, "Yeah. A lot of it was just, you know, two heads are better than one. I feel like utilizing your peers as an educator is one of the most beneficial things you could do."

Administrators also prompted participants to utilize critical reflection. Some participants indicated that conversations with their administrator sparked reflective opportunities and adaptations to their teaching. P2 stated,

So, we have a wonderful, not every school is as lucky as we are, but we do have a wonderful administrator that believes in us and then listens to us, but also says, have you tried this? Are you doing a good job?

P4 described how her principal supported her reflection after an observation:

So, when he approached me later in the day, he was like, hey, did you get my email. I was like well I didn't. He said well, did you have a chance to just reflect

on this morning? And it was like, oh, yeah. So I, you know, went to his office and he said, how do you think it went this morning? And I was totally honest. I said, it was awful. I said, my students weren't engaged and I was not at my best. And, you know, it just, it was one of those lessons where you know deep down that it wasn't, it wasn't your strongest. It wasn't the best reflection of your ability. And he said, you know, I agree. He said it was not, not the strongest that I've seen of you. And he gave me a couple really good foundational reminders, things that I know, things that I do, but just things that I did not demonstrate.

Many participants referred to self-reflections that were constant and never ending.

P2 observed that critical reflection is constant and demands much time:

It's demanding. I mean it's never ending; you don't sleep when you're in the shower you're thinking about it when you're trying to fall asleep you think about it on your way to work you're thinking about it when you're at lunch just constantly thinking about it so there's no downtime for your brain because you're constantly thinking how are you going to do this? How are you going to fix this?

P4 agreed:

Like I said, I'm my hardest critic, so I tend to spend my nights, you know, instead of sleeping, thinking about how I could have done things differently, just reflecting on, you know, how I can improve, you know, myself, both professionally and, you know, personally... You know, sometimes it happens in the middle of the night, and it's not always when you want it to happen.

P4 continued describing the constant reflecting by saying,

Sometimes on the weekends, I find myself just staring at all of my data walls and reflecting and processing and looking at how students either have or have not made growth and trying to figure out what I could do differently to meet the needs of these students.

P6 added that she self-reflects in the middle of teaching at times:

I'm constantly making changes on sometimes within a lesson itself I'm thinking about oh we're going to change directions um or we're not getting this and we're going to switch it, so I feel like I'm doing it all the time.

Planning time was another time that prompted critical self-reflection. P4 noted that her planning time was the best time to reflect:

But I have a planning period every afternoon, and so that's kind of when there's a little bit of [a pause] in my day. It's quieter. The students are all, you know, at specials, and I can kind of reflect on the day and how certain lessons went and how certain students behaved. and that end of the day period where they're all out of the room is a really good time to just reflect because I'm in my classroom. I'm in the zone and everything is still fresh. And so that's when most of the reflection happens.

P5 also stated that she reflects during planning time and also said after teaching a lesson she reflect as well:

Well, when I'm doing planning for the week, I try to do planning a week ahead in advance. So, I'm already thinking ahead about what we need to do. And then throughout the week as I teach the lessons, I'm thinking about it. And since I'm in

language immersion, I teach the same lesson twice every day. So, if the lesson is not successful in the morning, then I realize, okay, I need to make some changes for in the afternoon. So, then the afternoon group generally gets a better lesson.

Another time P5 engaged in self-reflection and made adaptations was during a lesson. P5 described this situation saying,

At the end of the lesson, I thought, you know what, we need to take those away and use something else. So, then I got out those little, I think they're called boogie boards. Oh, they write on them with a pencil or the plastic and it lights up kind of thing. You know what I'm talking about. I don't know what they're called. But when we switched over, they didn't have to deal with the markers and the erasers, and they were actually able to do more work. So, it was a basic change but realizing midlesson and that that's what needed to happen, it was kind of a positive for them.

In summary, the teachers described their formal training of critical reflection during classes, practicums, and student teaching experiences. Other avenues of training were in professional development courses, National Board Certification process, and master's programs. There was a spectrum of levels of preparation for critical reflection at the beginning of their career which ranged from not being prepared at all to feeling very prepared. Now, in the midst of their teaching careers, all participants indicated they are constantly engaged in critical reflection. PLC meetings were a common time for critical reflection to happen, but also conversations with peers and administrators prompted many participants to engage in critical reflection, and they also described when they self-

reflected to include planning periods, midlesson, or after a lesson as common times for critical reflection. Although teachers did not feel fully prepared for critical reflection at the start of their teaching journey, they reported finding critical reflection an essential part of their practice.

Results for Research Question 2

RQ2 asked, How do kindergarten teachers describe the support they need to implement critical reflection as part of their adaptive teaching practice? The three themes associated with answering this question were critical reflection challenges, critical reflection support needs, and reflective grace and celebrations. I will recount participants' thoughts connected to each of these themes.

The first theme includes how participants described the challenges they encounter when engaging in critical reflection. A lack of time and things outside of teachers' control were challenges for many participants. P1 used an analogy to describe her feelings of the lack of time for critical reflection, "The train is moving. Oh, so fast. There's not a lot of time. It's always go, go, go, go, go. And so that makes it hard. And then just balancing work, home life." P1 further explained this feeling by stating,

Well, time constraints a lot of the time. Just you know you have a pacing schedule and you gotta get through it when you want to like stop and then different kids have different needs um meaning like kids already understand that concepts they're ready to move on they're bored and they're starting to act out because the lesson's taking so long or the kids don't the ones that don't understand they're acting out because they don't understand, so it's a diversion instead of you know

saying I don't understand and I need help it's you know more fun to goof off and play off than try and make your brain work and so those constraints get hard because you don't have time to I don't have time.

P5 agreed, "Time would probably be the big one. There's not enough time in a day to get everything done." P6 also commented that part of not having enough time is the lack of time to find resources too, saying, "Time. And sometimes limited to what the curriculums you have available. if you're trying to change up curriculum or whatever resources you have available to be able to change something. But just thinking, that's just time." P5 summed this dilemma up by saying this about the time challenge, "Take time to actually do it."

Some participants acknowledged that there are things outside of their control that make critical reflection challenging. P4 offered this description:

Things that I can't control. I mean, I could reflect all day long on, you know, why a certain student isn't making the growth that I think they are capable of. And there's many factors that are out of my control. I've got kids that come to school once a week. I've got kids that have food insecurities. I've got kids that have speech problems. And those are things that I can work with students on, but there are only so many factors that you can control. And so, I think the reflection I do is hopefully gearing towards the things that I can improve on and things I can help my students with. But ultimately, I can't make this one kid come to school 5 days a week, and I can't help this student with their speech needs so I can understand what they're saying on a regular basis, or I can't help the fact that I have students

from homes that are beyond any nightmare I could ever imagine. And there's just those factors that you can't control.

P3 indicated the students' emotional needs often take precedence over academic imperatives:

So, the emotional side of it is so much greater than possibly in the upper grades and the exhaustion factor because they are so needy versus, you know, we're teaching fairly simple concepts. So, we just have to figure out how to get the connections made. And then once we can get the connections made with the kids, the concepts will come if that makes sense. But it's very difficult to critically think about all the lessons. I'm more thinking about their welfare.

Curriculum and process requirements of kindergarten teachers within the school district presented another challenge to critical reflection for participants. Pacing guides that describe at what point in the curriculum a teacher should be teaching on any given day, were a challenge that is also related to time. P5 commented on how pacing guides keep her from utilizing critical reflection to meet student needs,

Pacing guides. Being directed by the district, telling me exactly what to teach, and when I'm supposed to teach it, because if I'm mandated to be on a pacing guide and teach certain lessons, there's just no wiggle room or, I mean, even if I had time to critically think about what I'm doing and the impact it has on kids, they don't really see that as an importance. It's move on to the next lesson. You have to get all these lessons taught before the end of the school year. The kids have to

meet all these goals. And sometimes they just, that isn't the important thing for these kids. They need more time. They need time to be kids too.

Another category within the challenges of curriculum and process requirements was the pressure to meet all kindergarten standards and the scripted curriculum of the school district. P5 described the struggle to use the script does not allow her to use outside resource that may benefit students,

And then when it comes to actual lesson planning, academic, all of that, they have, the district has put such a focus on their, what they used to call, like, reading the script. And they would come in and they would look and see, you know, what page you're on and if the whole district's on the same page and they're saying, you know, they don't want to choose any teachers to pay teachers stuff. So it's really gotten so much more standardized that you don't have a lot of time for critical thinking. You really just don't, you know, you're trying to teach what they're telling you to teach and it's very difficult.

P5 explained how the striving to meet all the standards and being required to use a scripted curriculum prevents her from meeting all the students' learning needs and stifles teacher creativity by saying,

When the district tells us exactly what to teach and when to teach it and it's scripted, it doesn't leave much for a teacher to interpret the actual needs of the kids and to make changes to it to actually meet their learning needs. I mean, they currently, they're giving me slides that I have to project up onto my TV. They're telling me exactly what to say. I don't think it's conducive to the learning styles of

all. It's just intended for certain kids. Some of these kids need hands-on materials and they're just isn't as many used. I mean, they don't need more screen time, but yet that's what we're expected to do. And I'm supposed to do it for math and language arts. So that's my entire learning block for both classes. It's very structured, very controlled. There's not a lot of wiggle room for creativity. I mean, we all try to bring their own flair into it and make it interesting, but it's kind of a challenge. So, and it's, because I've done this 23 years, it's getting worse every year. And when I started teaching, I had a ton of freedom, and I could see what my kids actually needed. And that's what I taught, knowing what the standards were and how to get them there. But now, I mean, if I have kids that are falling behind in letter names and letter sounds, there's no room for me to back up and reteach that or teach it a different way because I don't have enough time in the day.

The findings reveal that class sizes and other student factors make critical reflection more challenging. P5 described how the number of students and the related time constraints limited her capacity for critical reflection, stating,

So, I have 52 students that roll through my classroom every day for kindergarten. And half their days in another language and half is in English. And during the English time, I only spend two and a half hours with them. And I'm expected to teach all of the language arts and math, which usually if you're in a normal kindergarten that's all day, you have all day to get through those lessons. And so, it wouldn't matter if the kid is struggling or not.

P5 further explained that with a larger class size comes a difficult challenge to meet all students' learning needs,

That is a lot of 5- and 6-year-olds moving around in one room at one time. And to be able to reach each one of them and make a connection with them and make sure that they're all learning, this is a challenge. It is a huge challenge. And I know that I'm slated for another 26 and 26 next year already because they're putting the lottery together. And so, it's just a lot of kindergartners in one room that have a lot of needs.

Student behavior was also a component outside of the participants' control that makes critical reflection challenging. P2 commented thusly,

Kids are coming in differently. So sometimes behaviors impede the learning of others. And then sometimes kids can't even help their behavior, so it's medical and they can't help it. And just behaviors are coming in harder and stronger every year.

P2 also stated that her focus in teaching is to support these challenging behaviors,

Well, sometimes it makes it hard to teach if you have someone is not behaving in class. And you have to come up with different ways to do a behavior plan for that child that works, do celebrations, be loving and calm, be positive with them, but also stern. You have to be stern, you have to teach in that life, in life, this is how we act. But it makes it challenging to teach.

P3 expressed feeling overwhelmed by different factors which included student behaviors stating,

The constant curriculum changes, the constant interruptions, the constant behavioral issues. Because you're thinking so much about what they're doing and how you can manage that and how you can, you know, fix the issue, make it better, work through it.

Some of participants spoke of burnout as a challenge for critical reflection. P3 said,

I really think that by the end of the day, all of us teachers are just completely burnt out. So, critically thinking throughout the day when you're barely surviving to keep the kids engaged and you're on the stage all day long.

P7 connected burnout to reduced ability of critical reflection in teaching remarking,

When you're feeling burnt out, there's just less creativity and less problem solving and more wallowing and less energy, so it's just not as vibrant of a brain as you can have when you're got all that weighing on you.

P7 further went on to say that burnout heightened the desire to stop critical reflection altogether but being unable to do so:

Burnout and having all the responsibilities that we do have. Sometimes at the end of the day you're just like I just want to leave everything and go home and turn my brain off and then also not being able to turn my brain off and tossing and turning at night.

These myriad challenges that arise in critical reflection suggest the second theme of the support that participants believe they need for better critical reflection and to become more adaptive teachers. The responses ranged from individual teacher support to

peer support to administrative support. Individual teacher support included ways participants could better support themselves to become better critical reflectors, such as giving themselves time and permission to engage in critical reflection. P3 noted:

I think meditating a little bit too, like taking that time to give yourself just the grace to just sit like I'm doing tonight. And then going back and reflecting on, you know, how you taught that lesson, what you could do differently, what you need. I think time is definitely important. And that's the biggest thing for me. I feel like I'm always behind the eight ball.

P5 spoke of giving herself time and making it a priority, "Making it more of like a priority... just allowing yourself to be like, okay, that can wait for a few seconds. I'm just going to focus right now and think about things that I can do differently." P6 related how having a designated time to apply critical reflection would be beneficial, saying, "Designated time and really this is probably me setting boundaries for myself of having designated time to go through it...Give myself that time. Sometimes I'm just so rushed, but I don't think about it." P6 also determined that written reflections may support her reflective practice by stating:

But I want to say I used to work with a teacher that she, at the end of each day, would write down, kept kind of a log of things. And I've never really been good at doing that. But I think, in theory, I think that's a good idea, just writing your thoughts down, you know, at the end of the day.

Participants also suggested peer support arising from reflective conversations with fellow teachers, observing each other and giving feedback, and finding time to meet to

reflect. P1 described reflective conversations as, “Doing what [P1 and the interviewer are] doing now, the ability to sit down and talk with, you know, my teaching partner or, you know, other colleagues.” P5 also noted that reflective conversations sparked ideas for adaptations,

Being able to meet with them and bounce ideas off of them and share what has happened and how maybe they would have handled it. I have a pretty supportive kindergarten team up here. And so, when we meet, I mean, we can laugh about the mistakes. And then they're like, oh, but did you think about trying this kind of thing? And it's like, oh, yeah, I should try that next and make changes that way.

P6 noted that in those reflective conversations with peers listening is key, stating,

A lot of times it's just listening. Listening to what and then you know offering different suggestions but sometimes it's just listening because then I'm a lot of times I'll come to the conclusion myself what needs to be done once I hear myself say it out loud. And that's me reflecting.

P7 indicated that holding peers accountable in their reflective conversations is important:

You know sometimes as a teacher you just need to vent, and you just need to get that off your chest. But other times you're really needing like other ideas and problem solving and so like our team we have here it's like if we're trying to problem solve and someone starts to get onto like the venting track. We just have a code word we say “girrrr!” and then we're like okay yep I'm done I'm done complaining like let's get to the problem solving you know mindset and so like giving that grace of like yeah I just need to vent, but then also, like, recognizing

and holding each other accountable. Like, I get that's a struggle, but we, like, what are we doing about it? Like, we can't just focus on that negative aspect. Like, how are we actually going to change the situation we're currently in?

Peer support was described also as coming to observe each other teach and giving constructive feedback. P3 remarked,

I would love it if teachers could come in and observe me. And tell me like things that I could do differently and then talk about it. I would love to be able to go into the teacher's classroom and have that opportunity to watch lessons. And oftentimes my teaching partner and I will take turns and teach the whole group so we can learn from each other and actually think about it because sometimes when you're in the moment and you're doing it day after day after day after day, it gets a little bit redundant and you forget things.

P4 furthered giving feedback to colleagues and highlighted how teachers need to have a mindset of good intentions and acknowledging that it is coming from a caring place by saying:

But I think being professionally honest and upfront with one another too, giving feedback, knowing that there's positive intent, just making sure we're supporting each other because, you know, it's kind of a dog-eat-dog world out there. And I think if you're able to listen to feedback from your peers and know that it's coming from a good intention, that there's a lot of growth possible. And if you can take that feedback without any sort of stigma, then I think it allows reflection to help you grow your practice. Because I don't think anybody is going to be perfect

at their job. I think there's always room for growth and room for improvement, and I think our teaching peers are probably the best resources to make that happen.

Each participant described how administrators could support critical reflection for them. Some common ideas that were described were time to reflect, constructive feedback from administrators, opportunities for observing other teachers, and trust. Several participants spoke of needing more time to engage in critical reflection in numerous ways. P5 noted the benefit of reflecting individually, "I think time is definitely important. And that's the biggest thing for me. I feel like I am always behind the eight ball." P7 agreed:

Time. I mean time is the biggest gift. Sometimes I think we're assessing all the time, yet we're not given the moment to like breathe and then like provide those interventions and like make the changes we need to make because oh no we just have to keep going the curriculum is moving you're 4 days behind you're 8 days behind. And it's like you know what that's just a paper, and these are real kids, and they need to stop, and we need to take a minute to revisit this topic. And lots of other things just take away from that and so I think time is the biggest gift you can give teachers.

Allowing time for peer reflections was another component of how administrators could support their critical reflective practice. P1 stated, "Give us time, time to talk." P6 remarked on the importance of giving time for reflective conversations with peers during staff meeting, "I think giving designated time during a staff meeting even if it's just

everybody has like, conversations with each other. Giving time for written reflections was another support mentioned. P6 noted, “Keeping the notes for yourself, giving time during a staff meeting to write notes, knowing that that information is just for you and for your own time, I think would be valuable.” P6 also added that including peers in writing reflections would be helpful by saying,

You know, maybe she has a guided sheet that we sit there and, you know, you take five minutes to sit there and write out something for yourself and then come back to it later, just giving time, but let it be for yourself. And if you want to talk to somebody about it, you know, and then, and then maybe, uh, if there was, just a specific guide or guidance to follow to help teachers build and ask themselves questions. Are there specific questions I should be asking myself? And, you know, that might, that might help to have some kind of guide, guided. Uh, but not necessarily like something you have to turn in or anything like that. I'm just something for yourself.

Another suggestion was that administrators could guide reflection with teachers. For example, P6 said, “So, I think the principal supporting and leading those discussions would probably be helpful. Even just giving you time during a staff meeting to say, okay, think about a specific lesson.” P2 agreed, “We do have a wonderful administrator that believes in us and then listens to us, but also says, have you tried this? Are you doing a good job?” P1 furthered the conversation of administrative reflection conversations to include honesty without judgement saying,

Then just to be able to talk with an administrator without judgment not feel like if I come to them because I'm having an issue or don't understand something or with a child or just you know for whatever reason to be able to have that open free conversation and not be thought less of.

Administrative feedback was another suggested support. P4 noted:

I would love more constructive feedback, but I love it when my principal comes in or my assistant principal and gives me feedback on what I'm doing well, but also anything they see that I could improve on. Because, you know, when you're in here all day with the same students, there are things that you just innately miss, whether you intend to or not. And having that extra set of eyes and somebody who is in a position where they can say, hey, did you know that this was happening, gives you more of an opportunity to reflect on, oh, maybe you didn't know that that was happening. What can I do to make sure the student is engaged or the student has their needs meant? So, I think that having administration come in and being able to give you that feedback on a regular basis would be very beneficial.

P4 also suggested administrators give opportunities for them to observe other teachers, stating,

I mean, I would say something that could help me reflect more is that I've always enjoyed the rare opportunities to observe other teachers, both kindergarten and not. Because I think when you are able to sit in on somebody else's class and see some of the strategies that they use, I think it definitely is beneficial and it allows

you to reflect on that's, you know, maybe that's something I could do differently, you know, that's something I do strong or maybe that's something that I can change or I'd like to try it. And I think that's one opportunity that as a teacher, you just don't get, you don't get to watch the beauty of other people and their practices. And I think that would be hugely beneficial if we were able to observe one another on a regular basis and reflect on how they do things compared to how you do things and, you know, what you feel like could be changed in both a positive or a negative way. I just, I think that would make a world of difference.

P7 highlighted that administrative trust and belief in her teaching abilities was important to becoming a critical reflector by saying,

Just like trust that like I'm a professional and I will use my time effectively and I don't need a babysitter to sit there and make sure like I do my thing. I would really just appreciate more time and more trust from you know our supervisors and whatnot to like yeah you know what you're doing and do what you need to do you've got this and not just worry about you should all be on lesson 5.3 in skills and 7.8 in knowledge and if you're not then you're failing.

The final theme described a need for reflective grace and celebrations.

Participants spoke of feeling inadequate, investing in self-support, and celebrating each achievement. Two participants described feeling inadequate as a danger in critical reflection that can lead to unhelpful rumination. P3 noted, "I'm always hard on myself so that makes it difficult but the critical thinking portion of it the reflecting on it the looking

at it from different aspects.” P4 noted that over reflecting on the areas where she is falling short creates feelings of inadequacy, stating,

I am probably my hardest critic...because when I do make a mistake, or have a bad lesson, or I've forgotten something, I take it out on myself pretty hard because I do over reflect and I overthink, and I do like to meet my own standards.

P4 continued to say, “I feel like I'm constantly reflecting almost to a fault.”

Several participants described a need for extending grace to themselves in their critical reflections. P4 indicated,

Maybe personally I should learn to give myself a little bit more grace because when I do make a mistake or have a bad lesson or I've forgotten something, I take it out on myself pretty hard because I do over -reflect and I overthink and I do like to meet my own standards. So, I think I would probably do a little bit better if I gave myself a little bit more grace. It's kind of the opposite answer of maybe what you were thinking, but I think that's where I'm at.

P5 agreed:

Like taking that time to give yourself just the grace to just sit like I'm doing tonight. And then going back and reflecting on, you know, how you taught that lesson, what you could do differently, what you need. I think time is definitely important. And that's the biggest thing for me.

P7 described how she needed to give herself grace but continue to grow and adapt her teaching holding herself and other teacher accountable for that, “So like giving that grace

of like yeah, I just need to vent, but then also, like, recognizing and holding each other accountable.

Another element of reflective grace was being nonjudgmental in reflective grace.

P1 said,

I think to not judge myself thinking I'm doing a bad job because you know I haven't reached a certain child in a certain way just be able to go you know they didn't understand it that way just find a different way I know that it's just, they just need a different way. It's not that I'm a bad teacher.

P1 mentioned how giving grace to herself by allowing time to not reflect but just be, "I also, I think meditating a little bit too, like taking that time to give yourself just the grace to just sit like I'm doing tonight." P2 furthered the reflective grace conversation by suggesting that teachers need to reflect on the things they are going well by saying,

I tell myself I did a good job when I do a good job and then remember to just keep looking...I'm trying to learn how to feel good about myself and what I've done and accomplished over the years. So just not being so hard on myself as hard as a teacher. We're all kind of like that...I think that when you're looking at your critical reflection, the first thing you have to do is always look at what you did great that day. Look at this. This went well, this went well, this went well, so that you're overdoing your well, what went well is more than what didn't go well.

P2 also suggested that teachers need to focus on one thing to work on a day to prevent discouragement, stating,

So, you're finding one thing that you need to change for the next day. So that way you're not, because if all you do, do is focus on what you didn't do right, then it's going to kind of burden down on you.

Celebrations were the final piece of reflective grace. P2 suggested beginning reflective grace by celebrating wins, "Celebrate all the things that went well first." P2 continued, stating,

Celebrate you because you're doing a great thing for lots of children in the schools and then in life and you're their role model to teach them how to be readers and writers and mathematicians and scientists and how to be a kind friend in life and critical thinkers.

Participants made many suggestions that would support their growth in critical reflection and make adaptations. Individual support included giving themselves time and permission to reflect, making it a priority, and writing their reflections. Peer supports that were suggested were finding time to have reflective conversations, having reflective conversations include listening ears, suggested adaptations, and accountability in the reflections for it not to become a venting or complaining session but a critical reflection on how to improve and change the situation, and having peers come observe for constructive feedback on teaching. Administrative supports were giving time to reflect individually, with peers, writing reflections, and with administrators, giving feedback and suggestions for adaptations, opportunities to observe other teachers, and trust in their teaching ability and professional judgements. Reflective grace and celebration were discussed which included feelings of inadequacy, investing in self-support by extending

grace to themselves, being nonjudgmental, permission to stop reflecting, and celebrating the things they are doing well as a teacher.

Additional Findings

One additional finding that did not address either of the RQ described participating teachers' focus on their use critical reflection to make adaptations to their teaching. Their examples of how they applied critical reflection included student behavior and classroom management, academic instruction and achievement, student engagement and motivation, needs assessment and planning, and interpersonal connections. Many participants related how they used critical reflection to make improvements in student behavior and classroom management. P3 noted, "This year has been a lot about behaviors, a lot about behavior...Definitely I reflected more on the behavior of kids and getting the class to making connections." P3 continued to describe a specific situation in which she used critical reflection to adapt her strategies to support a student's behavior, "We tried everything. We tried stickers. We tried, you know, earning points to go different places. We tried a reward system. I mean, we tried everything." P1 also commented on a critical reflection that led to an adaptation saying,

At school with a student, I'm frustrated with his behavior and having to take a minute and adjust how I *wanted* to speak to him versus how I *needed* to speak to him. So, because I didn't want to add fuel to the fire. And so, I had to make sure that I was very aware of my actions and not react to his overreacting.

P6 illustrated a similar way she engaged in critical reflection in her adaptive practice for challenging student behaviors:

I'm thinking of a time when I had a student who was having a very challenging time in the classroom following directions and I could feel myself getting frustrated and not responding in the best way that I could. So, I had to stop and think, okay, what is, how can I help him best? And so that he's successful and that I'm not as frustrated. And so, I thought about it, and I just sat down with him and just started to have a conversation with him. I asked my para to take over so that I could just sit and just have a conversation with him about other, you know, nonacademic, non-outside-of-school things, and then work on a plan, because we did have a behavior plan, but I needed to work on it, we needed to adapt that behavior plan to help be more positive. And so, then I just, after having that conversation and adapting his plan and talking it through with him and then getting him on board I just felt a lot better myself and really thinking about what I can do to change either my reactions or responses to help them have a positive outcome.

P7 used critical reflection with student behavior and documenting it to evaluate and assess how best to support them by saying,

What was the behavior? What was the antecedent? What did they gain from, you know, that behavior? And how did they, you know, were they successful or not successful in, you know, self-regulating, making good choices and all of those things...Like taking data was so important you know where you know what times of days were these behaviors happening how often were they occurring you know what were those responses.

Another category of the focus of their critical reflection was participants described classroom management adaptations that were prefaced by critical reflection. P7 said, “I use critical reflection, setting up clear expectations.” P7 continued to describe other ways she engaged in critical reflection in her adaptive practice saying,

I use it daily to impact my lessons, provide small groups, provide interventions, use the correct progress monitoring tools, and all of that...I use it for my classroom management I use it for my teaching as well like my instruction looking at you know I'm providing a whole group lesson and in that lesson are my students engaged or are they you know off task or distracted...What is our conversation level? Where do we get help? What's our movement? What's our activity? What does success look like? And we really spell it out before we start our center work. What are, you know, those expectations?

P6 furthered this conversation by identifying the reflective questions she asks herself to direct both students and classroom management decisions, “What went well? What didn't go well? What could I do differently?” P6 remarked how she applied critical reflection when choosing teaching resources, stating, “Sometimes it's because I don't have those materials, but sometimes it's just because I'm thinking ahead of what 5-year-olds can handle and can't handle.”

Participants also discussed academic instruction and achievement as another focus for critical reflections in their adaptive practice. Mathematics was one subject that some participants identified as a topic that led to critical reflection and adaptations. P1 said, “[I reflected] in math right now and then trying to get them to understand different ways to

make 10.” P6 indicated that a reason she reflected on mathematics was due to learning a new math curriculum. P6 stated, “I’m just thinking of math in particular because I felt like this year, I’ve had to adapt the math lessons quite a bit because it’s a new [curriculum].”

Literacy was another focus for adaptations sparked by applying critical reflection.

P4 related that she reflected due to a new assessment of phonics,

I noticed that a lot of my students in the area of phonemic awareness really were not proficient when I had thought that they were. And that’s because the previous assessment measure that we had been using didn’t assess phonemic awareness.

And so, I reflected a lot on that, and I just so happened to be enrolled and taking a science of reading course shortly after that. And it really gave me a chance to reflect on my practice because the science of reading course went through many things that I hadn’t seen since my undergrad, which was 20-ish years ago. And so, I didn’t even realize that there were some things with teaching phonics and phonemic awareness that I was rusty on...I’ve really changed the way that I teach phonemic awareness and that I focus on it.

P2 gave an example to illustrate her use of critical reflection adaptations in letter formation, identification and sounds,

So, every day I’m researching trying to find out a new way to teach them Bs and Ds so they understand. In any extra work I put in, it’s going to make them more successful... My EFL [English foreign language] students do not know the letter sounds. Okay, you’re going to work with my TA [teaching assistant]. You’re going to get extra help.

P6 continued with another example saying,

I have a student that is struggling to remember what letters look like to be able to write them down. And our regular curriculum and our interventions are just not quite enough for him. And so, I have been trying to think of what kinds of ways I can help him remember what those letters look like.

Student engagement and motivation was another category participants focused on in their use of critical reflection in adaptive teaching practice. P3 said this of student engagement, “And I think I also critically think about looking and diving deeper into why kids aren't paying attention.” P3 also gave an example of her critical reflection in adaptations:

And then one day I said, well, honey, how can I help you? What can I do that to make you work faster? And then she told me that she has a stuffed animal. And if she could have just brought her brought animal to school, that was her soulmate. And he makes her go really fast to everything because he's a cheetah. Oh, okay. So she brings her cheetah every day to school now.

P4 agreed: “And so a lot of the reflections that I do professionally comes back to my students' engagement.” She described her use of critical reflection on engagement stating, “And so, I'm still trying to be very cognizant about the things that I didn't do right and making sure that I am on a regular basis demonstrating that, you know, classroom management and student engagement.”

P2 said, “How can I make this more interesting daily?” P2 provided an example of an adaptation she made from this critical reflective question:

We're starting with the monuments, so I was wondering because it's kind of boring for the kids. I mean they're 5 years old and it's kind of boring but then I had I taught them that the presidents are there. But then we built our own monument, and they drew all their family members with a monument on a piece of paper. We hung them in the hallway, so it made it more interesting for them. So finding out the curriculum and then taking it, making it more interesting.

P1 remarked on how she utilized critical reflection to motivate students,

In our new curriculum, it's a lot of teacher talks. So just trying, you know, me going, okay, I'm talking too much. I need to get them talking more. How can I get them talking more? And doing more and taking ownership of their own learning.

P7 agreed:

I'm looking at okay what is their buy-in? How am I gonna get them excited? What cultural connections can I make? What anchors in their learning can I provide them? So that they're like oh yeah I remember this and yeah this is fun and exciting.

Needs assessments and planning were a category within the focus of critical reflection in adaptative practice. Participants highlighted how they needed to use students' assessments of needs and plan accordingly to meet those needs. For example, P7 said,

And then just you know my formative assessments, my summative assessments are always giving me data points that I can reflect on and just kind of temperature check where my class is at and if we're meeting our learning goals.

P3 agreed:

I mean we're constantly adapting to kids or you know I have a couple autistic kids so we're you know like today one of them was just kind of spinning. So we're like okay we need to go get a weighted stuffed animal. Okay now he needs to go take a couple walks and then instead of sitting in his seat he can jump in his seat or have a wiggle stool. You know just trying to do anything to get them motivated and figure out what each one needs.

P2 added,

So, I kind of know what's going on with all my kids and where they're at. And that helps me evaluate what I'm going to be doing for the day. You really have to know your students. You really have to know your students and a big part of knowing your students is if you understand that kids aren't understanding, changing it to try a different way to make them understand.

P6 described how planning for meeting student needs is a part of critical reflection in her adaptive practice saying,

Reading ahead of the lesson to figure out how it's going to go ahead, you know, how it's going to be, how it's going to work within the day or the time. So I guess I'm doing it a lot and even reading through the skills lesson whether I've done the skills lessons a billion times or not I still have to think about the kids that I have during that time period this year because it's different every year it's different every day, it's different every hour. You know how it is with that age group.

P7 gave an example of how she assesses for adaptations,

So, I just I saw that student was struggling and so I started taking data just to see like how often this is happening? Is there a pattern? Like is it every Monday? Is it just they have the Mondays? Is there someone coming into the classroom? Who's providing something where they're you know feeling better? Is there something I'm doing differently?

P4 noted that she engaged in critical reflection more with students who struggle saying, "I got three students in particular that just are not thriving quite at the pace of their peers. So those are kind of the ones that I really have given a lot of reflection on."

Interpersonal connections was another area participants focused on critical reflection and adaptations. P7 said, "There's not a day that goes by where I don't think I am critically reflecting on my classroom in all aspects, whether it's classroom management, student success in learning objectives, relationships with parents and colleagues." P3 spoke of developing empathy and understanding for her students in her critical reflections and adaptations by saying this,

I'm constantly thinking about how I can make it different, how I can improve it, how I could connect with them more to have more empathy, understanding for their situation. So, I mean, I really focus on the interpersonal connections with my kids.

P5 summed it up saying, "I think it's important for teachers to know their students. Get to know the kids, learn their learning styles, make the connections with them."

This additional finding addressed how participants focused their use of critical reflection in their adaptative practice. They gave examples and descriptions of areas

where they focused their critical reflection on adaptations to their practice. These areas of focus were student behavior and classroom management, academic instruction and achievement, student engagement and motivation, needs assessment and planning, and interpersonal connections.

Summary of Results

The data indicated that most participants did not have formal training in critical reflection and felt unprepared to use it at the beginning of their teaching careers. All participants described how they developed critical reflection skills through time and experience with informal means of using critical reflection with peers, administrators, and themselves, which allowed critical reflection to become innate and second nature. Although there were many challenges inherent in using critical reflection and many participants suggested support needed to encourage critical reflection, the idea of reflective grace and celebrations were key for participants. In addition, participants described how they applied critical reflection in everyday practice of adaptive instruction, which provided a snapshot of challenges kindergarten teachers face and how critical reflection helps them meet these challenges. These results will be further explored in Chapter 5.

Evidence of Trustworthiness

I maintained trustworthiness through the processes of credibility, transferability, dependability, and confirmability. To uphold credibility, I sought validation of transcripts from all participants, peer debriefed with my committee chair, kept a reflexive journal, and used triangulation by obtaining multiple perspectives from numerous participants.

Transferability was supported by using rich detail in the accounts of the setting and interviews. Audit trails using detailed explanations and triangulation of multiple participants' responses to support claims was how I established dependability.

Confirmability was created by constructing a concise coding system and maintaining detailed records in data collection and analysis processes by keeping notes, memos, and rationales for coding and writing reflexively after interviews. These were the ways that I worked to create and maintain trustworthiness.

Summary

In Chapter 4, I described the setting of the study and recounted the data collection and analysis processes. I presented the results for the two RQs and one additional finding and summarized these results. Although most participants did not have formal training in critical reflection and felt unprepared to use it at the beginning of their teaching careers. All participants described how they developed critical reflection skills through time and experience with informal means of using critical reflection with peers, administrators, and themselves. Many challenges are inherent in using critical reflection and many participants suggested supports needed to encourage critical reflection, but the idea of reflective grace and celebrations were key for participants. In addition, participants described how they applied critical reflection in everyday practice of adaptive instruction. Evidence for trustworthiness was provided by giving details of how it was created and maintained. Chapter 5 will include the interpretations of the findings, identify the limitations of the study, suggested recommendations for how to use the studies' results and those implications for their uses, and a conclusion of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this basic qualitative study was to explore the experiences of kindergarten teachers regarding the training they received on critical reflection and the support they feel they need to implement critical reflection for an adaptive teaching practice. This study was conducted to increase understanding of kindergarten teachers' experiences with critical reflection training and how this training has affected their use of adaptive teaching. Data indicated that most participants did not receive any formal training in critical reflection but developed it through time and experience from practicing with peers, administrators, and by themselves which cultivated a critical reflective practice that was innate and second nature. Participants suggested many ideas for support that could be given to address the inherent challenges of critical reflection, and one idea of reflective grace and celebrations was key. The descriptions participants gave to illustrate how they engaged in critical reflection illuminated the focus of where they spent their time and energy to be adaptive in their teaching practice.

Interpretation of the Findings

A key finding in this study was that many participants did not receive training in critical reflection but developed it through time and experience spent informally reflecting with peers, administrators, and individually. Tannenbaum and Wolfson (2022) supported the use of informal training as an effective way to develop critical reflection as it includes seeking feedback and reflection-based learning and learning that happens vicariously through experience and experimentation. Key activities of informal learning that were confirmed in the study were conversations with others, reflecting on how to

improve one's performance, and sharing resources (Tannenbaum & Wolfson, 2022). All participants shared that they felt unprepared to use critical reflection at the beginning of their careers but now have developed their critical reflective skills that are innate and second nature. Hong et al. (2023) described the levels of critical reflection as descriptive, justification, critique, and discussion. In the stories participants shared they demonstrated how they used the levels of critical reflection at various times in their teaching careers which notes they are continually developing critical reflection to become more adaptive in their teaching practice.

Another key finding in this study was the notion of reflective grace and celebration. This finding extended the knowledge of critical reflection to include grace for failures or shortcomings and remembering to celebrate the positives when reflecting. One defining characteristic of critical reflection is analyzing and evaluating to find weaknesses and problem solving to become a better practitioner. This often means a teacher is looking at their actions where students are not succeeding or thriving in the classroom and adapting. Miller (2023) highlighted how critical reflection training led to employees identifying their weaknesses and becoming more astute problem solvers. While this is a positive outcome for students as it leads to educators supporting all students learning, it can have a negative outcome of being too critical of themselves and feeling overwhelmed because they see many ways they are not meeting students' needs. This can lead to burnout, less creativity, and less problem solving. Participants identified one way to combat this was to give themselves grace in their critical reflections and to

make sure they are celebrating areas they are succeeding and doing well; this idea may be a unique contribution to the literature.

The last key finding was the focus of participants' critical reflections in making adaptations in their teaching. This finding confirms the knowledge of critical reflections as it gives a snapshot of where participants chose to spend their time engaging in critical reflection and what kindergarten students' needs are within their classrooms. Brown et al. (2021) reported that kindergarten students come with a plethora of academic, socioemotional, and behavioral needs, which confirms the teachers' focus on all of these in their use of critical reflection. Suh et al. (2023) added that being an adaptive teacher helps support the diverse learning needs within a classroom, thus supporting teachers' engagement with critical reflection to become more adaptive in their teaching practice.

These findings matched the conceptual framework of Schön's (1983) reflective practice theory in a couple of ways. Schön stated that critical reflection happens with experience to intentionally cultivate a problem-solving mindset to achieve desired outcomes, which is what each participant chose to do in their teaching practice. Participants developed and engaged in critical reflection through time and experience. Their feelings of being unprepared to teach spurred the need and a desire to engage in critical reflection to become adaptive practitioners. This ignited the deliberate act of inquiry, as Romo-Escudero et al. (2022) stated, that led to effective application of critical reflection in adaptive teaching. One way that differed from expectation was the idea of reflective grace and celebration being important to critical reflection. Teachers in this study suggested a need for balance in the purpose of critical reflection, between problem

solving to make adaptations and granting oneself grace and moments of celebration in the difficult process of working with students.

Limitations of the Study

The small sample size, which was lower than anticipated, is a limitation of the study. I hoped to recruit 10 participants, but I was able to locate and interview only seven participants by the end of the data collection phase. The timing of data collection may have affected willingness of prospective participants to volunteer, because recruitment occurred during the spring semester when kindergarten teachers were beginning to wrap up instruction and assessment at the end of the school year. The small sample size may influence the transferability of the study to a broader population, although data saturation appeared to have been achieved. Another issue that affected one interview was an interruption by a school secretary on an intercom. This instance disrupted the participant's thoughts which could have led to a loss of ideas and incomplete answers and a reduced richness in their responses. No other issues affected the interviews, in that none were interrupted by connectivity issues, other people, or pets.

Recommendations

One recommendation for future research is to expand the sample size to validate the findings. This study was a first step in exploring the critical reflection training of kindergarten teachers. The results should be read with caution, however, due to a sample size that may not have met qualitative standards of minimum participants (see Hennink & Kaiser, 2022). By using the same methodology and finding more participants, the results of subsequent studies may validate the findings of this study.

Another recommendation is that a study be conducted with teachers in other grades than kindergarten, teachers in other regions of the United States, and with educators who hold different roles, such as school administrators. How critical reflection is part of administrative practice might be particularly revealing and may indicate issues of training, time allocation, and culture that support or impede thoughtful consideration of key issues. How PLCs contribute to the practice of critical reflection may be explored in an observational study by a researcher embedded in such a teacher-led support group. One unique finding was the suggestion to balance reflective critique in service of adaptative teaching with grace for and celebration of engagement in the reflective process. Future research should examine this balance, perhaps exploring the effects of a balanced approach in critical reflection on student learning outcomes, reduction of teacher burnout, and increased teacher job satisfaction.

Implications

Many implications for critical reflective practice among teachers, administrators, school districts, and educational institutions were suggested by this study. First, educational institutions should continue or begin to create and engage in critical reflection in coursework, practicums, and student teaching with peers, mentors, or master teachers. Teachers in this study reported little preparation for critical reflection in their preservice work and so felt unready to engage in thinking about their instruction in their 1st years of teaching.

School district leaders should continue or begin incorporating critical reflection into their professional development initiatives to further advance and support all teachers'

critical reflection practice. In addition, professional development of in-service teachers should emphasize critical reflection to reinforce its use in adaptive teaching. Participants' responses indicated that they needed more time to engage in critical reflection, and this is one way school districts could support it. Administrators can carve out time and space for their teachers to practice critical reflection individually, with peers, or with administrators by implementing common planning times or include reflection in staff meetings. These actions were suggested by many of the participants, who felt their administrators could do more to support their critical reflection practice and help them become more adaptive teachers.

Participants in this study also suggested teachers could collaborate among themselves to support each other in critical reflection and in solving problems through adaptations to their teaching practice. Teachers should be proactive in engaging in critical reflection by themselves, with peers, and with administrators. Many participants reported the many demands of teaching kindergarten kept them from applying critical reflection and the tasks that were asked of them were so many that there was no time for it. A culture of reflection, supported by the school district, building administrators, and teaching colleagues, is needed to encourage making time for critical reflection in the school day.

A final key take-away from the participants was that they should give themselves grace for their failures and shortcomings and celebrate their areas of strength and growth. A barrier to critical reflection may be fear of feeling inadequate or even guilty for a child's failure, and this barrier may prevent teachers from examining their practice and

making changes. A culture of reflection in the school must also include a culture of grace and celebration.

Positive social change may result when teachers become better at applying critical reflection and use critical reflection to become more adaptive practitioners. When teachers are provided with time and opportunities to cultivate a critically reflective practice, instruction may improve, and teacher satisfaction may increase. Teachers who are encouraged to extend grace to themselves and celebrate ways they make an effort to support students may develop more adaptive teaching practice, create better student learning outcomes, experience less teacher burnout, and cultivate a critical reflective mindset that benefits themselves and their students

Conclusion

In this study, I investigated the critical reflection training of kindergarten teachers and support needed to become better adaptive teachers. This study demonstrated that critical reflection is developed through time and experience, applies across many areas of teaching adaptations, and is balanced by providing grace and celebration of the difficult and rewarding effort of critical reflection. Tannenbaum and Wolfson (2022) described the use of informal training as an effective way to develop critical reflection as it includes seeking feedback and reflection-based learning and learning that happens vicariously through experience and experimentation. Suh et al. (2023) stated that being an adaptive teacher helps support the diverse learning needs within a classroom, thus supporting teachers' engagement with critical reflection to become more adaptive in their teaching practice.

Some recommendations made in this study are expanding the sample size to validate findings and widening the parameters to include teachers of other grades, investigating critical reflection practice with administrators, and exploring how PLCs support critical reflection. Implications of the study include that teachers and administrators make time to engage in critical reflection individually and with peers, that they embrace a culture of critically reflective practice as part of the path to more adaptive practice, and that teachers and administrators incorporate into critical reflection a sense of grace and celebration to provide a balanced perspective of their teaching practice. Positive social change may result when teachers are guided and supported in applying critical reflection to make instructional adaptations and in celebrating their efforts in critical reflection, which may lead to better student learning outcomes, less teacher burnout, and a cultivation of a critical reflective mindset of benefit to teachers and students alike.

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Appendix: Interview Questions

1. We are going to be talking about critical reflection. This is the process of intentionally thinking about what happened in a situation, and how you plan to change or adapt your actions to achieve a better outcome. Think back for a minute to a time when you paused to critically reflect on a situation. Tell me about that.
2. How much do you use critical reflection in your everyday life, to think through situations and solve problems?
3. How about in your classroom, or with your students? Tell me about a time you used critical reflection in the classroom.
4. What can you tell me about training you've had in using critical reflection, maybe in professional development or in your college courses you attended?
5. When you first started teaching how prepared were you to use critical reflection?
 - a. Were you required to use critical reflection in your student teaching before you became a teacher?
 - b. Back when you were just starting out as a teacher, was critical reflection part of what you did every day?
6. Now that you've been teaching for a while, how much do you use critical reflection to shape your instruction?
 - a. Are you required by anyone – or expected by anyone – to use critical reflection in your teaching now that you've been teaching a while?
 - b. Do you feel that critical reflection is something you do every day, or maybe every week, or at the end of a marking period or something?

7. Tell me how you use critical reflection to make adaptations in your teaching.
 - a. How intentional are you in using critical reflection (that is, is it part of your planning)?
 - b. How about using conversations with other teachers about your teaching challenges – do you ever do that?
8. There are a lot of demands of kindergarten teachers. What kind of support might you need to use critical reflection more to help you adapt your teaching to students' needs?
 - a. How can your fellow teachers support you?
 - b. How can your administration support you?
 - c. What can you do for yourself to hone your critical reflective skills?
9. What are the challenges that make critical reflection difficult in your day-to-day teaching?
 - a. How do these challenges affect your ability to adapt teaching to students' needs?
10. You have told me a lot about your training in critical reflection and your use of critical reflection to adapt your teaching. Is there anything else you would like to share about that?