

DISSERTATION

AN EXPLORATORY CROSS- CASE STUDY OF PARENT AND TEACHER
PERSPECTIVES ON CHILDREN'S KINDERGARTEN EXPERIENCES FOLLOWING
PLAY-BASED EARLY CHILDHOOD EDUCATION

Submitted by

Lisa Ann Fyffe

Department of Occupational Therapy

In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Spring 2024

Doctoral Committee:

Advisor: Patricia Davies

Co-Advisor: Arlene Schmid

Kristina Quynn

Louise Jennings

Copyright by Lisa Ann Fyffe 2024

All Rights Reserved

ABSTRACT

AN EXPLORATORY CROSS- CASE STUDY OF PARENT AND TEACHER PERSPECTIVES ON CHILDREN'S KINDERGARTEN EXPERINCES FOLLOWING PLAY- BASED EARLY CHILDHOOD EDUCATION

Play has been the foundational pedagogical approach to early childhood education dating back to the days of Plato (428-347 B.C.E..) and Socrates (469-399 B.C.E.). Yet recent changes in public policy emphasizing academic content mastery at kindergarten entry threaten the tradition of play as the dominant means of learning for young children enrolled in early childhood education centers. Early childhood professionals argue that pedagogy emphasizing approaches to learning, social relationships, and self-management are essential in preschool, and prepare children for subsequent academic instruction. Parents, fearful that their child will not be ready for kindergarten if they are not exposed to academics early on, place pressure on privately funded early childhood centers to provide academic rigor under the guise of school readiness.

The desire for children to develop learning readiness through playing stands in contrast to educational reforms priorities of standardized instruction and measurable academic results to support efficacy in early childhood education programs. Early childhood educators, in response to public policy and parental expectations, may design their preschool curriculum with an academic emphasis, thus disrupting the tradition of play as the dominant means of learning for young children. For play to retain its' importance in early childhood education, research will need to demonstrate how play prepares children for kindergarten.

This dissertation explores how children fared in kindergarten following play-based early childhood education at a Reggio-Emilia-inspired preschool. The Reggio Emilia-inspired philosophy of early childhood education emphasizes artistic expression, child-led exploration, engaging environments and collaborative relationships to promote children's curiosity and joyfulness with learning (McNally & Slutsky, 2018). Play-based learning is a pedagogical approach to early childhood education grounded in guided play, where the adult curates a learning context towards an educational goal and the child maintains agency and some degree of freedom to explore and discover while learning (Zosh et al., 2018).

Cross-case analysis was used to gain a deep understanding of the experiences of four children navigating kindergarten during the Covid-19-affected 2020-2021 school year. Data included: a series of three 1-hour interviews with four mothers and three kindergarten teachers at the onset, midpoint and conclusion of the school year, field visits during remote learning, and artifact collection including work samples and progress reports.

The most substantial findings from this longitudinal study center on three main constructs: school readiness, everyday adaptability, and kindergarten performance, which are each addressed in the three manuscripts included in the dissertation. Finally, I situate my dissertation within the Occupation and Rehabilitative Science framework and conclude my dissertation by describing the implications of this dissertation of occupational therapy practice and future scholarship.

Keywords: play-based early childhood education, Reggio Emilia, kindergarten transition, school readiness, adaptation, kindergarten performance, occupational therapy

ACKNOWLEDGMENTS

I wish to acknowledge the Colorado State University *Occupational Therapy at the Early Childhood Center Research Fund* and the *Wanda Mayberry Research Fund* for their financial contributions to my dissertation. I also want to thank the Poudre School District Research Advisory Board for their support of my study.

Dr. Patricia Davies and Dr. Arlene Schmid served as my co-advisors and provided invaluable mentorship, support, and guidance to me through their thoughtful involvement. Dr. Kristina Quynn, who served as my outside committee member, mentored me during the writing phase of my dissertation and I benefited greatly from her expertise and wisdom. Dr. Louise Jennings also served on my committee and inspired me with her vast knowledge of qualitative research methodology and her kind manner as a scholar and mentor. I am extremely grateful for my committee's guidance and support.

Dr. Cerissa Stevenson was involved in the proposal stage of my dissertation, and her sharp eye and deep understanding of educational research was instrumental in shaping the early phases of my dissertation work. Dr. Matt Hickey provided leadership during the final phase of my dissertation process, and I appreciate his stewardship in bringing this project to a successful conclusion. Alison Herman and Erica Bethel also contributed their time and expertise to this project, by serving as my parent and teacher consultants, respectively. I benefitted greatly from their insights and appreciate the substantial contributions each made to my work.

I want to acknowledge the incredible work of the teachers and administrators at the Colorado State University Early Childhood Center. With deceptive ease, these talented professionals enact play-based learning with joyfulness and enthusiasm. I am thankful for every

hour I have spent working and learning alongside of these remarkable educators, whose work is central to my dissertation research.

I am also grateful to the parent and teacher participants who generously shared their time and insights with me. Most of all, I am thankful for the four wonderful children who were the focus of my dissertation. You have all inspired me with your wisdom, kindness, and curiosity.

DEDICATION

For my parents, Jack and Jane Verkler. With love and gratitude, Lisa Ann.

TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGMENTS	iv
DEDICATION.....	vi
CHAPTER ONE: INTRODUCTION.....	1
The Context of Educational Reforms and Public Policy.....	2
Opportunities for Preventative Occupational Therapy Practices in Public Schools	3
Play Contributes to Children’s Development and Wellbeing	4
Researcher Perspective	5
Theoretical Perspective: The Influence of Occupation and Rehabilitation Science.....	6
Rehabilitation Science.....	7
Occupational Science	9
Rehabilitation and Occupational Science and School-Based Occupational Therapy Practice	12
Conceptual Framework.....	13
Study Purpose	15
Aims	15
Research Questions	16
Structure of the Dissertation	16
CHAPTER TWO: LITERATURE REVIEW.....	18
Play and Learning.....	18
Academic Content in Preschool Reduces Time for Children to Play	19
Parent and Teachers’ Views on Play-Based Pedagogy	21
Literature Search Terms and Strategies.....	23
An Evolving Place for Play in the School Readiness Conversation.....	24
The Construct and Measurement of School Readiness.....	31
Play-based Learning: A Pedagogical Approach to Early Childhood Education	36
Parent and Teacher Perspectives on Play-based Pedagogy	45
Parent Perceptions of Play-based Learning and School Readiness.....	46
Teacher Perceptions of Play-based Learning and School Readiness	48
Conclusion	52
CHAPTER THREE: METHODS.....	55
Research Design.....	55
Participants.....	56
Participant Descriptions	56
Addy	56
Isaac.....	56
Leah.....	57

Nadine	57
Participant Selection.....	57
Procedures.....	59
Pandemic Influence	63
Data Analysis.....	64
Within-Case Analysis.....	65
Cross-Case Analysis.....	65
Quality Assurance.....	66
Positionality	67
Closing Reflections.....	70
CHAPTER FOUR: JOURNAL ARTICLE ONE	73
Entering Kindergarten After Years of Play: A Cross-Case Analysis of School Readiness....	73
Introduction.....	73
Methods.....	77
Research Design.....	77
Participants	77
Pandemic Influence	78
Procedures	78
Data Analysis	79
Cross-Case Analysis.....	80
Quality Assurance	81
Positionality.....	81
Findings.....	81
Theme 1: Learners.....	81
Theme 2: Explorers	83
Theme 3: Communicators	85
Theme 4: Empathizers.....	87
Discussion.....	88
Conclusions	93
Limitations.....	93
CHAPTER FIVE: JOURNAL ARTICLE TWO	100
Play-based Learning and Everyday Adaptability: A Qualitative Study of Children’s Kindergarten Transition During Covid-19.....	100
Introduction.....	100
Methods.....	102
Participants	103
Data Collection.....	104
Data Analysis	105

Quality Assurance	106
Findings.....	106
“Willing to Adjust”	106
“Understands the Situation”	108
“Uses Advanced Language”	109
“Embraces Challenge”	111
Discussion.....	112
Limitations.....	114
Conclusions	114
CHAPTER SIX: JOURNAL ARTICLE THREE.....	120
Parent and Teacher Perspectives on Children’s Kindergarten Competency Following Play-based Learning at a Reggio Emilia-Inspired Preschool.....	120
Introduction.....	120
Methods.....	124
Research Design	124
Participants	125
Pandemic Influence	126
Procedures	127
Data Analysis	128
Quality Assurance	129
Findings.....	130
“Get Your Brain Thinking”	130
“Just a Good Little Student”.....	133
“I Know I Can Count on Her”	136
“In-tune with the Class”	139
Discussion.....	141
Limitations.....	144
Conclusions	144
CHAPTER SEVEN: CONCLUSION AND DISCUSSION	150
Lessons Learned: Reflections on the Play and Learning Relationship.....	150
The Role of Play in Fostering Competent and Responsive Children.....	152
Social Relationships, Approaches to Learning, and Self-Management	153
Implications for Occupational Therapy Practice and Research.....	156
Limitations	158
Alignment Within the Occupation and Rehabilitation Science Framework.....	160
Reflections as an Occupational Therapy Practitioner, Educator and Researcher.....	165
Concluding Remarks and Future Direction of My Research.....	166
REFERENCES	170
Appendix A: Initial Parent Interview Protocol.....	191

Appendix B: Initial Kindergarten Teacher Interview Protocol	192
Appendix C: Second Parent Interview Protocol.....	193
Appendix D: Second Teacher Interview Protocol.....	194
Appendix E: Final Parent Interview Protocol	195
Appendix F: Final Teacher Interview Protocol.....	197

CHAPTER ONE: INTRODUCTION

Play holds a murky position within the field of occupational therapy, lauded as the primary occupation of young children, yet predominately used in practice as a reinforcer to promote children's compliance with therapist directed activities (Kuhaneck et al., 2013). Occupational therapy practitioners and scholars are quick to state the importance of play yet struggle to articulate the value of play to a broader audience of stakeholders such as parents, administrators, policy makers and third-party payers (AOTA, 2008). Riley (2021) described how play supports children's learning, mental health, and engagement in daily life, urging occupational therapists to promote play as an occupation due to its "many implications for overall health and wellbeing" and as a "foundation from which higher learning develops" (p. 302). Yet, occupational therapists have reported that play is not central in their practice due to their perceived concerns with play's lack of educational relevance or necessity for health and wellness (Kuhaneck et al., 2013).

The American Occupational Therapy Association (AOTA, 2008) has called upon occupational therapy practitioners to "support, enhance and defend" the rights of children to play from infancy through adolescence. In a position paper, AOTA stated, "The absence of childhood play, or reduced opportunities for it, deprives children of an essential context for their optimal development and learning" (AOTA, 2008, p. 707). AOTA emphasizes that occupational therapists should promote play's intrinsic value, recognize the role of play in fostering children's optimal development, health, and well-being, and expand access to inclusive and accessible play spaces for all children (AOTA, 2008). This statement suggests a need for occupational therapists to seek innovative ways to promote children's play across all environments and contexts, and for research to justify these innovations by providing evidence of their value and effectiveness.

My dissertation answers AOTA's call to promote play by focusing on the play and learning relationship. Using an exploratory cross-case design, I investigated how four children fared in kindergarten following play-based early childhood education at a Reggio-Emilia-inspired preschool. Play-based learning uses guided play to scaffold and support children's inquiry processes through child-directed exploration within a group context (Pistorova & Slutsky, 2018; Shoaga, 2015). Children's social reciprocity, self-management, and positive approaches to learning are the primary focus of play-based learning environments; these are key predictors of children's successful transition to kindergarten and long-term success in school (Goodrich et al., 2015; Pistorova & Slutsky, 2018). The Reggio Emilia-inspired philosophy of early childhood education emphasizes artistic expression, child-led exploration, engaging environments and collaborative relationships to promote children's curiosity and joyfulness with learning (McNally & Slutsky, 2018).

The Context of Educational Reforms and Public Policy

Understanding how play-based learning prepares children for kindergarten is of particular interest for advocates of play and the early childhood community. The National Center for Educational Statistics reported that 74% of 3- and 4-year-old children are enrolled in some form of preschool program, making the content of these programs impactful on most American children (NCES, 2018). While early childhood education traditionally offered play-based instruction, this changed when the National Commission on Excellence in Education (1983) issued a report entitled *A Nation at Risk: The Imperative for Education Reform*. Congress responded by enacting *America First* (1991), comprehensive education reform aimed at improving school readiness through higher academic achievement scores. While the original intent of this reform was to address learning gaps in secondary schools, the concept of

standardized assessment and instruction eventually trickled down into early childhood education. Subsequent legislation including No Child Left Behind (NCLB; 2002) and Race to the Top-Early Learning Challenge (RTTT-ELC; 2013), further cemented standardized assessments and instruction as the cornerstone of early childhood education practices. Public preschools and early childhood centers, who receive their funds through the State and Federal government, were incentivized to comply with these policies through funding streams linked with student achievement. In the United States, 30% of kindergarten children now attend schools with no recess time and young children's play time is estimated to be 25% less than seen a generation ago (Yogman et al., 2018).

Opportunities for Preventative Occupational Therapy Practices in Public Schools

The role of occupational therapists (OT) working in public schools continues to evolve in response to society's needs. According to the National Center for Educational Statistics (NCES, 2022), 33% of children in public school are diagnosed with a specific learning disability, 19% are diagnosed with a language delay and 5% are diagnosed with an emotional disturbance. While one-third or more of public-school students are classified as having a disability, NCES (2022) reports only 15% of students are supported with an Individual Education Plan (IEP). Educational policy explicitly requires comprehensive, multi-tiered systems of support built on professional collaboration, embedded services, and universal learning design (Giese, 2021). Every classroom is now a special education classroom and occupational therapists have a professional obligation to contribute broadly to discussions about inclusive classroom design, accessible curriculum and embrace teaching practices that create opportunity for diverse learners to participate in their education.

In addition, states continue to create universal preschool programs in response to citizen demand, which further expands occupational therapy's footprint within early childhood education. OTs have an opportunity to leverage our knowledge of environmental contributors to health and integrated child development to contribute to collaborative interprofessional discussions of best practices in early childhood education. As educational policy continues to trend in the direction of student health promotion and inclusive classrooms and practices, occupational therapists need to articulate a vision for how our expertise can contribute more broadly to the success of all students (Giese, 2021).

Play Contributes to Children's Development and Wellbeing

Occupational therapists understand the relationship between the learning environment and student performance and participation; are positioned to view the student experience over time and are well versed in whole-child development; these perspectives seem especially germane to conversations about best practices in early development and learning. Exploring how play prepares children for learning is worthy of consideration due to the pervasive effects educational achievement have on children's quality of life and overall health outcomes.

Children perform well in school when they arrive ready to learn, capable of adapting to changing classroom expectations and ready to expand their knowledge through well-developed learning approaches. Pistorova and Slutsky (2018) stated that the twenty-first century learners must be fluent with "critical thinking, communication, collaboration and creativity"; these traits are learned through pedagogical practices that uncover children's curiosity, imagination, and social reciprocity. The process of play has an unmistakable depth of learning embedded within it, representing every early developmental domain and learning disposition required to prepare children for more cognitively delivered academics (Colliver & Fleer, 2016). For young children,

learning is a process of exploration, social awareness and self-discovery that builds their readiness for future advancements in knowledge acquisition (Pistorova & Slutsky, 2018).

Researcher Perspective

Traditionally, OTs have provided interventions for individual children focused on the remediation of deficits; this approach is limited on two fronts. First, this approach fails to fully prepare children to live well within a given disability and second, it does not address elements of the social environments in which children live that may be contributing to disability and disadvantage. With this idea in mind, I began to wonder how I could use my occupational therapy training to promote the health of families and communities. At this time in my life, I became a mother myself and saw first-hand the ways in which children were parented in modern society. I was bothered by the emphasis on organized, adult directed activity and achievement pressures at very young ages, and the lack of value parents in my social circle placed on unstructured play and socialization free of adult interference. I found myself wondering about the impact of reduced or eliminated opportunities for play on the developing child.

After I was hired and settled into my first year as an assistant professor at Colorado State University Department of Occupational Therapy (CSU OT), I began the process of formalizing an OT partnership with the Early Childhood Center (ECC) and reflected on what I had learned through years of clinical practice that could inform the role of OT in this new setting. Play-based learning seemed to be a viable mechanism for promoting young children's health and inclusion in early childhood settings and seemed a worthy focus of occupational therapy involvement.

When I began taking OT students to the ECC in Fall 2015, I committed myself to understanding as much as I could about play-based learning and the Reggio-Emilia philosophy, which are foundational to the educational experiences offered at the ECC. I became invested in

the concept of child-directed, play-based early childhood education practice to foster the group learning behaviors that are essential in creating successful kindergarteners. In the simplest of terms, I had found an intellectual and philosophical home as an OT working in play-based education. I embraced Reggio-Emilia and play-based learning tenets and sought to instill this wisdom within my OT fieldwork students and my practice.

As I continued to expand my understanding of how occupational therapy fits within play-based early childhood education, I encountered questions that I wanted to answer, such as what constitutes school readiness, and how does play-based learning prepare children to thrive in kindergarten and beyond? I also saw limitations in my own OT education and realized that while I knew many things about child development and disability, I knew very little about school readiness, kindergarten transition, and educational pedagogy. I designed my dissertation to focus on the relationship between play and learning, and this demands that I advance my fluency in many areas of scholarship outside of my field of OT so that I may better situate my knowledge within modern OT practice. I want my dissertation to make a significant contribution to how OTs think about the play and learning relationship, enact their role as specialized instructional support personnel, and contribute to positive learning contexts where all students achieve their educational goals.

Theoretical Perspective: The Influence of Occupation and Rehabilitation Science

I approached my dissertation from the perspective of an occupational therapist, with a desire to design play-based education and kindergarten transition research using a distinct OT lens. I drew upon key principles of occupation and rehabilitation science for theoretical congruency between my research and my disciplinary perspective, emphasizing the role of the environment in enabling or suppressing children's early development and readiness for learning.

Rehabilitation Science

Rehabilitation science presents disability as “an interaction between characteristics of the individual (e.g., conditions or impairments, functional status, or personal and social qualities) and characteristics of the natural, built, cultural, and social environments” (Seelman, 2000, p. 77). Rehabilitation scientists adopt the social model of disability put forth by the World Health Organization in the International Classification of Functioning, Disability and Health (WHO, 2001). See Figure 1.1 at the end of this section for a graphic representation of this model. In the Children and Youth version, the International Classification of Functioning, Disability and Health (ICF) defined disability as “a complex collection of conditions, many of which are created by the social environment” (p. 18). Disability and impairment are separate constructs within the ICF model, with impairment reflecting a significant deviation or loss in body structure or function while disability is a lack of inclusion and participation in society. When disability is defined within the environment rather than the person, the degree to which one experiences disability depends upon the supportiveness of the environment in fostering or hindering participation.

The central focus of rehabilitation science is the study of transitional factors, which are defined as the contextual elements that influence an individual’s movement along the enabling-disabling continuum where disability increases in response to a non-supportive environment, and decreases given a supportive environment (Seelman, 2000). Anaby et al. (2014) used the Participation and Environmental Measure- Children and Youth (PEM-CY) to explore the home, school, and community participation habits of 576 children and youth ages 5 to 17 years with and without a diagnosed disability. The authors found that the presence of a diagnosis did not predict children’s level of participation or functional limitations; rather environmental factors

such as societal attitudes and accessibility had the more significant impact. These findings validate the environment as a contributor to children's participation in everyday life contexts and suggest that social and physical environments significantly influence children's day-to-day function (Anaby et al., 2014).

While rehabilitation science describes enablement within the context of supporting participation of individuals with a diagnosed impairment, the concept of enablement is also pertinent to conversations about early childhood education. Children are dependent upon their environments to provide opportunities for optimal early development and thus occupational acquisition and learning readiness. Pierce et al.'s (2009) work on Infant Space Theory described how infants aged 1-18 months of age used their physical and social environments to support the acquisition of new occupations. Using a grounded theory approach, these researchers illustrated how children used and responded to their environments to develop skills such as eye gaze and visual search strategies, then integrated these skills into more advanced actions such as crawling and walking. As their skills advanced, children used the physical environment for differing purposes and prompted caregivers who constituted their social environment to continue or discontinue offering activity choices based on their responses. Pierce et al. (2009) work illustrates the relationship between integrative developmental experiences and environmental offerings, offering insights into how occupations emerge for non-impaired infants and toddlers within an enabling context.

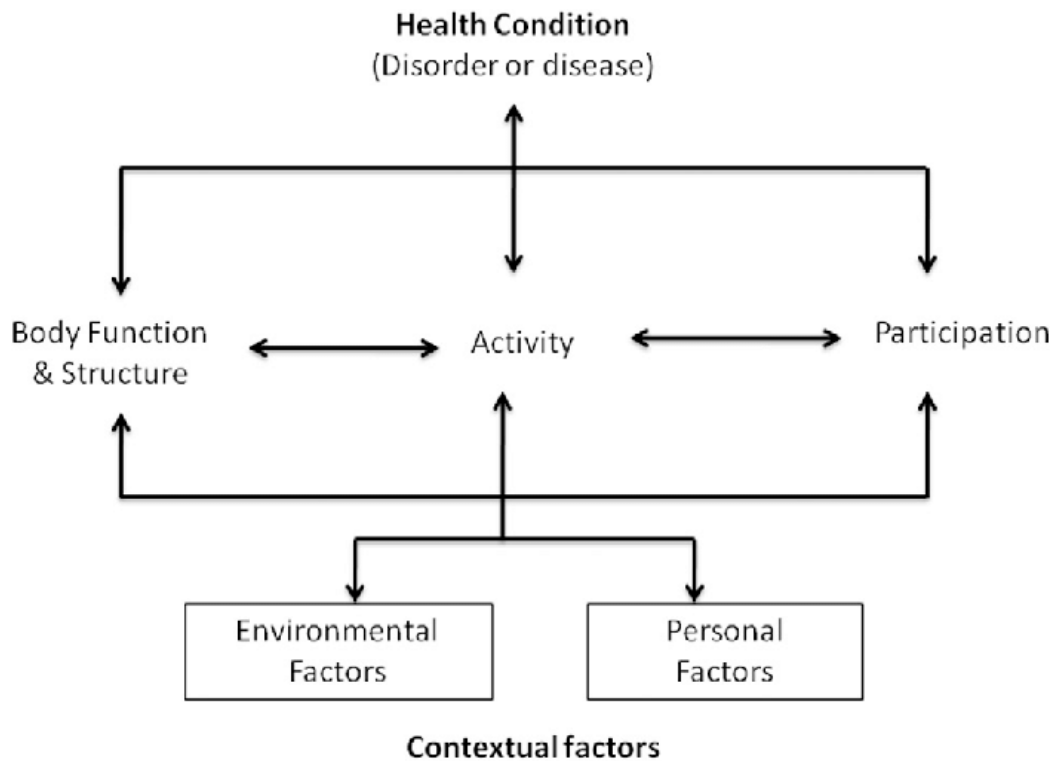


Figure 1.1: Graphic illustration of the International Classification of Function as presented by the World Health Organization (2001).

Occupational Science

Occupational scientists study the relationship between occupation and health. Adolf Meyer, considered the founding father of occupational therapy, proposed that mental health and engagement in meaningful activity was intricately connected. Meyer believed that health and wellness unfolds when individuals live actively in harmony with nature and participate in meaningful occupations (Meyer, 1922). William R. Dunton, Jr. further elaborated that quality of life requires a balance of existing, thinking and acting and that health involved the organized use of time in healthy patterns of living. Engagement in occupation was thought to restore or maintain the capacity of both mind and body and disruption in a person’s pattern of occupation resulted in disability (Kielhofner, 2009b). The environment is also essential in understanding how occupations unfold in the lives of individuals. As early as 1918, occupational therapists

were trained in the idea of considering the environment, including instructions to “prepare his [client] mental attitude so that he may adjust himself to normal demands and environments after hospital discharge” (Training of Teachers for Occupational Therapy, 1918, p. 50).

While time use and activity patterns are observable, other aspects of occupation are subjective and known only to the individual engaged in the occupation. The role of meaning, motivation and life balance are essential to understanding the potential of occupation to promote health. These ideas were put forward by Susan Elizabeth Tracy in recognizing the individual interests of clients and the need to be resourceful in selecting activities that were personally motivating (Tracy, 1912). Eleanor Clark Slagle also emphasized the role of meaning by writing that “restoration of physical capacity without the will to do is a futile thing” (Kielhofner, 2009a). These scholars posit that meaning and motivation are cornerstones of a high-quality life.

Occupational scientists consider the environment to be inextricable from human occupation, thus having a profound influence on how individuals develop over the lifespan (Yerxa, 1990). Dickie et al. (2006) described this relationship between human occupation and environment as “a continuity of persons and world...meaning that what we would typically see as separate are really part of each other” (p. 88). These authors argued that occupation binds the individual within a situation, and therefore the individual and the environment cannot be seen as distinct from one another. Dickie (2006) extends this argument by suggesting that humans are intertwined within their routines and environments to the extent that occupation transforms both people and situations continuously. Occupational therapists should therefore view the relationship between the person and their daily living contexts as reciprocal, meaning that routines act as a driver of human health and wellness.

The view of the environment as inextricable from human health highlights the importance of daily routines in creating opportunities for children to experience optimal development. Health can be thought of as the organization of time into healthy patterns of living, with appropriate combinations of rest, work, self-care, and play (Kielhofner, 2009). When occupational therapists create contexts where children's optimal development flourishes through patterns of meaningful activities, we enable children's health and well-being (Humphry, 2002).

Children need to play as part of their daily routines to optimize their health and wellness. Law (2002) described that participation in play promotes children's health and well-being by providing a sense of competence and autonomy, both necessary for psychological health and social development. Play provides opportunities for children to have transformative experiences by expanding their current knowledge of the world as they navigate increasingly complex social interactions through creating and acting out various scenarios with peers (Bundy, 2010).

Play also provides opportunity for cross-domain development, where children integrate discrete aspects of motor, language, social, cognitive, and adaptive development into more complex interactions related to learning, such as the ability to respond appropriately to peers, follow adult directions, and apply knowledge across contexts (Downer et al., 2010). Finally, children experience high quality of life through the self-actualization and physical and emotional well-being that comes about during play, further highlighting the critical importance of access to play as part of the daily life of young children (Moore & Lynch, 2017).

The view of humans as occupational beings where health and development unfold within balanced patterns of time use, the transaction between the environment and occupation and integration of mind and body through occupation is instrumental in informing research related to an understanding of play and learning. Humphry and Wakeford (2006) build on the idea of a

holistic perspective of humans via a contextual view of child development that recognizes the mechanisms that support children's participation and engagement in daily life. By arguing that occupational therapists should seek to understand child development as the way children acquire knowledge to enact societal roles, Humphry and Wakeford (2006) deemphasize developmental domains in favor of children acquiring increasingly complex routines and actions. The view of integrated development is consistent with early ideas of humans as occupational beings by focusing the view of the child to reflect engagement in everyday life in response to environmental influence.

Rehabilitation and Occupational Science and School-Based Occupational Therapy Practice

Occupational therapists consider the environment as a key component of participation and performance, recognizing that factors within an environment can either enable or suppress engagement and success. We know as occupational therapists that environment and health are interrelated and therefore, we need to think about how the academic environment and everyday classroom interactions influence children's health and wellbeing. Instead of focusing on how the child needs to adapt to meet classroom expectations, what if we flipped the question and asked ourselves what does the classroom need to offer to meet the needs of every child?

The designation of occupational therapists as "specialized instructional support personnel" in Every Student Succeeds Act (ESSA, 2015) provides an opportunity for occupational therapists to redefine their place in public education and contribute more broadly to student success. The role of the environment is emphasized in ESSA (2015), with inclusion priorities that eliminate institutional barriers and promote health and wellness for all students. Occupational therapists are encouraged to expand their reach within their assigned schools to have a more extensive presence across school environments and greater access to populations of children. Framing

health as a positive state of functioning within the context of the daily routines of the school creates opportunities for OTs to collaborate on broader school decisions, including factors such as classroom design, curriculum, and pedagogical practices. Embracing the concept of integrated services, occupational therapists can work collaboratively with their educational colleagues to skillfully embed support within the natural contexts of the school day and respond to classroom needs outside of the traditional path of the individualized education plan.

My dissertation reflects the importance of the environment by seeking to understand how children fare in kindergarten following play-based learning. Play-based learning is built upon participation and engagement, aligning well with the concept of enablement predominant in rehabilitation science. Because play-based learning is child-directed, children influence how their learning unfolds, creating an inclusive environment that allows for engagement from a wide range of learners. Play-based learning also reflects how children, and their environments are inextricable, a central concept in occupational science. Young children develop and learn in the context of their daily routines, and recurring opportunities for play affords children the opportunity for health and wellbeing.

Conceptual Framework

I propose that play fosters learning readiness by providing a context that drives children's social-emotional, language, and cognitive development. From these developmental competencies, children build their learning dispositions, including social relationships, self-management, and approaches to learning (Goodrich et al., 2015). These learning dispositions prepare children to acclimate to their classrooms and enable them to be receptive to new learning. When children can relate to others, adjust to group learning expectations and employ established inquiry practices they benefit from more cognitively directed instruction and

therefore make advancements in their academic learning (Goodrich et al., 2015). I show these hypothesized relationships graphically in Figure 1.1.

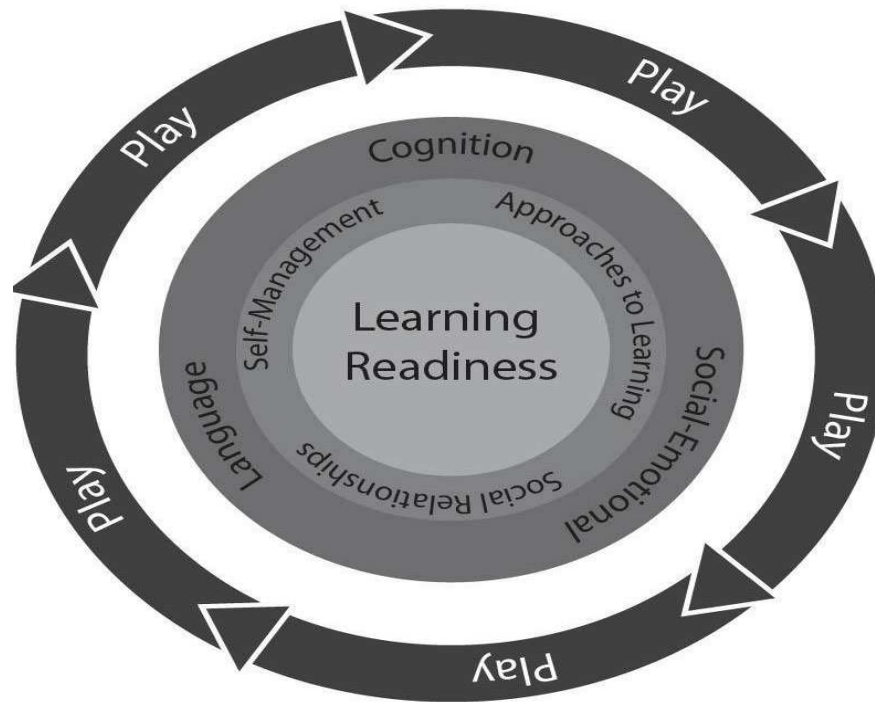


Figure 1.2: Graphic representation of the conceptualized relationship between play and learning readiness.

Most Western countries, including the United States, use an acquisitional model of learning when designing their early childhood education programs. Within an acquisitional model of learning, the learner acquires new knowledge from an external source, allowing for a comparison between what the learner knew before the knowledge was transmitted and after the knowledge was transmitted (Snow & Matthews, 2016). When learning is viewed as a process of knowledge transmission, as found in classrooms employing direct instruction pedagogies, knowledge is constrained in the sense that it is comparable and can be mastered to complete proficiency (Snow & Matthews, 2016). Counting to twenty or reciting the letters of the alphabet are examples of constrained skills, because children’s counting ability and knowledge of the alphabet can be measured at intervals and mastered to perfection. Because constrained knowledge is more readily

measured, this type of knowledge is often the focus of standardized assessments of educational performance.

Unconstrained skills, defined broadly as executive functioning and relational skills, are harder to standardize across children and have many potential levels of competency. For example, problem-solving is an unconstrained academic skill, and children display problem solving through many degrees of complexity and variation in reasonable responses.

Unconstrained skills are best nurtured when children direct their learning in line with their interests, work alongside peers to construct knowledge and have guidance from their teachers to extend and support their learning (Pramling-Samuelsson & Johansson, 2006). Child-directed learning also gives space for children to find joy with learning and to explore topics of interest, thus developing children's curiosity and inquiry processes (Pramling-Samuelsson & Johansson, 2006). Unconstrained skills are emphasized within play-based pedagogies because participation in learning through engagement, collaboration and discovery are the desired outcomes (Snow & Matthews, 2016).

Study Purpose

The purpose of my dissertation is to describe and understand how four children fared in kindergarten following play-based early childhood education from the perspectives of their parents and kindergarten teachers. Based on my conceptual model describing how play elicits children's learning readiness, my research aims and questions are as follows.

Aims

1. Understand and describe the participating parents' perceptions of how their child fared transitioning from a play-based early childhood education center into public kindergarten.
2. Understand and describe the participating kindergarten teachers' perceptions of how the children participating in the study fared in their preparation for and transition into kindergarten.
3. Understand and describe the participating children's performance and adaptation in kindergarten following play-based early childhood education.

Research Questions

1. How did participating parents view their child's transition into and adjustment to kindergarten following play-based early childhood education?
2. How do teachers view the readiness and progress of the participating children as they transition into kindergarten and complete their kindergarten year?
3. How did participating children manage their transition into kindergarten and how did they perform as kindergarteners throughout the school year?

Structure of the Dissertation

This dissertation contains seven chapters. In Chapter Two, I offer a critical synthesis of theoretical scholarship and educational research describing play-based learning as a pedagogical practice in early childhood education settings. I then review research focused on parent and teachers' perspectives on play-based learning as a pedagogical practice in classroom settings.

In Chapter Three, I describe my research design and methodology. I will explain my rationale for conducting a qualitative, longitudinal study using cross-case methods and discuss my positionality in relation to my researcher role.

Chapters Four, Five and Six contain original versions of three manuscripts that have been submitted or accepted for publication in peer-reviewed journals. The first manuscript describes the school readiness of these four children following play-based early childhood education at a Reggio-Emilia-inspired preschool and was published by the *Early Childhood Education Journal* on November 15, 2022. The second manuscript describes the everyday adaptability of these children as they navigated kindergarten. The third manuscript describes how these children performed as kindergartens.

Chapter Seven summarizes and connects the findings highlighted within these articles. I also discuss the implications of my research on occupational therapy practice and present a plan for continued research in this area.

CHAPTER TWO: LITERATURE REVIEW

In this chapter, I provide a critical synthesis of literature related to play and learning in early childhood education, legislative reforms affecting early childhood education practices, and play-based learning as a pedagogical practice. I then describe parent and teacher perceptions of play-based learning and conclude by connecting my dissertation aims and questions within this body of literature.

Play and Learning

The relationship between play and learning has generated significant debate within the early childhood education community, yet despite significant research effort, a causal relationship between pretend play and young children's learning has not been conclusively established (Lillard et al., 2013). Both play and learning are diffuse and complex constructs; either can be defined in a variety of ways depending on the setting and circumstances (Weisberg, Hirsh-Pasek & Golinkoff, 2013). In the early childhood educational context, Zosh et al. (2018) defines play as a spectrum, describing how children's engagement in learning falls along a continuum ranging from free play (little to no adult guidance) to guided play (facilitated adult guidance and intentional learning goal) to structured games (high adult guidance with a discrete learning goal).

Learning in early childhood education also entails nuance. First, young children must learn how to engage in a group learning context, therefore establishing positive approaches to learning, social relationships and self-management are critical learner dispositions supporting successful kindergarten entry (Goodrich et al., 2015). But children must also be ready for the academic concepts they will encounter in kindergarten and benefit significantly from developmentally appropriate exposure to the foundational thinking within academic subjects during early childhood (Clements & Wright, 2022). Researchers show that young children who are exposed

to foundational academic knowledge make significant gains in language and literacy (Dickinson & Porsche, 2011; Mol et al., 2009), math (Classens & Engels, 2011; Clements & Sarama, 2021) and science (Wright & Gotwalls, 2017) as they transition into kindergarten and matriculate through the higher elementary grades.

Play has a long history as a prominent pedagogical approach in formalized early childhood education, with broad support both within the early childhood community (Pistorova & Slutsky, 2018; Pramling-Samuelsson & Johansson, 2006; Taylor & Boyer, 2019) and from major national organizations such as the National Association for the Education of Young Children (NAEYC) and the American Academy of Pediatrics (AAP). The malleability of play and its undeniable appeal to young children makes it an effective mechanism for engaging young learners in a wide array of curricular priorities (Zosh et al., 2018). Yet the most prevalent critique of play-based pedagogical approaches in twenty first century literature is that play-based learning does not prepare children for the academic concepts they will encounter in kindergarten (Nilsson et al., 2018; Rademacher et al., 2021).

Academic Content in Preschool Reduces Time for Children to Play

Educational reforms in the early 1990's introduced school readiness assessments measuring children's academic knowledge as they enter kindergarten; this created a sense of urgency among parents and early childhood educators for children to arrive at school well-versed in academic knowledge (Shoaga, 2015; Nicopoulou, 2015). As early childhood educators and parents grapple with societal pressure related to school readiness assessments, educational theorists and developmental scientists emphasize children's participation, discovery and exploration while learning, free from the constraints of rote instructional practices (Hirsh-Pasek et al., 2009; Miller & Almon, 2009; Nicoloupolou, 2010). Durkin et al. (2022) conducted a

longitudinal, randomized control study of 2990 four-year-old children participating in a state-funded pre-kindergarten program; half enrolled in the program and half served as a wait-listed control group. At the conclusion of sixth grade, the researchers compared the achievement test scores and disciplinary records of the pre-kindergarten enrollees and the wait listed group who did not attend pre-kindergarten. The authors found that children who were wait listed significantly outperformed children who attended the state-run pre-kindergarten across academic subjects and received less disciplinary referrals related to conduct. The authors concluded in part that the pre-kindergarten program's heavy curricular emphasis on academics taught within rote pedagogical practices resulted in less time for children to interact socially and develop inquiry strategies through discovery and exploration. As a result, the children enrolled in the state-run pre-kindergarten program were less skillful at applying concepts they knew and less able to adjust their behavior and interactions to align with classroom norms (Durkin et al., 2022).

Hudstedt et al. (2018) tracked kindergarten teachers' beliefs related to school readiness over a thirteen-year period using survey data in 2000 (N=171), in 2011 (N=185) and in 2013 (N=257). The authors found that while kindergarten teachers increasingly prioritize school readiness assessment data as children enter kindergarten, they also continue to rank nonacademic skills (e.g., getting along with others, managing their personal needs and following routines) as most important for young children entering kindergarten. Considering how children can receive both a strong foundation in academic concepts along with rich opportunities for socialization, self-management, and inquiry seems to bring together the priorities of the policy makers (i.e., school administrators and legislators) and the policy enactors (early childhood education and kindergarten teachers).

While NAEYC (2020) provides guidelines directing educators to provide young children with appropriate exposure to foundational academic content using playful pedagogy, effective ways to demonstrate how play-based pedagogy facilitates learning to broader stakeholders (e.g., parents and kindergarten teachers) is less clear. Studies have shown that children learn foundational academic concepts well in the context of play-based pedagogy, but the descriptions of children's learning are more formative in nature, e.g., children showing a deeper understanding of scientific inquiry (Miller & Saenz, 2021), stronger aptitude for math (Vogt et al., 2018), or more complete literacy expressions (Bollinger & Myers, 2019). Translating these formative observations into more quantifiable measures of academic proficiency aligned with school readiness measures could demonstrate how foundational academic aptitudes developed in the context of play-based early childhood education prepares children for kindergarten.

The National Association for the Education of Young Children (National Association for the Education of Young Children [NAEYC], 2020) guidelines for integrating academic content within early childhood curriculum directs educators to instruct young children in the methods, tools of inquiry and foundational structures of each academic discipline (i.e., reading, writing, science and math) using pedagogical practices where children are engaged, playful, inquisitive and have agency to solve problems autonomously. In this sense, play-based pedagogy and rich academic content knowledge are used in tandem to provide young children with highly effective and impactful learning experiences that prepare them for subsequent educational contexts.

Parent and Teachers' Views on Play-Based Pedagogy

Parents and kindergarten teachers also express complex and contradictory responses when asked about their views of the effectiveness of play-based pedagogy in early childhood education, though research exploring this topic is limited. Parents report favorable views of play-

based pedagogy when they themselves have a high opinion of play (Woolnough, 2017) and liked that children are “hands-on learning” while playing (O’Gorman et al., 2012) but express concerns that children need more adult guidance and structure to master academic content (Ginsberg, 2007; Breathnach & Danby, 2016). Kindergarten teachers express inconsistencies in defining play-based learning (Feesha & Pyle, 2016), tend to dichotomize play from learning (Pui-wah & Stimpson, 2004) and feel pressure from colleagues and administrators to limit play-based pedagogy in favor of academic instruction (Lynch, 2015). A limitation of parent and teacher perspective studies published to date is that parent and teacher participants were asked to describe their views on play-based learning based on their prior lived experiences rather than in the context of a specific child. Using a case study approach, Moon & Reifel (2008) found that a teacher debriefing on her specific experiences using play-based pedagogy in her pre-kindergarten classroom resulted in rich descriptions of how play-based pedagogy supported foundational academic gains in literacy. Woolnough (2017) explored 32 parents views on play-based education by conducting focus groups with parents whose children were enrolled in play-based early childhood education centers. The authors found that parents appreciated play-based learning for their children and wanted to see these practices continue (Woolnough, 2017). These studies suggest that in-depth parent and teacher interviews allowing participants to situate their perspectives within a child’s classroom context can be effective at uncovering participant views on play-based learning in educational settings.

In summary, research exploring how play-based learning prepares children for kindergarten has yet to show superior effectiveness in fostering academic competency when compared to other pedagogical approaches. For play to retain relevance in early childhood education, researchers and practitioners must show that it delivers measurable learning outcomes aligned

with the needs of the twenty-first century student. This chapter discusses play-based education and school readiness and explicitly explores how the ideology surrounding school readiness affects the status of play as an effective early childhood education pedagogy. First, I overview the history of play's evolving role in early childhood education and describe how changing views of school readiness affect play's prominence in early learning. Second, I examine play-based learning research, situating the learning outcomes arising from play-based education within the school readiness conversation. I conclude by positioning the research of this dissertation within the play-based education and school readiness colloquy, emphasizing the school readiness, kindergarten performance and adaptability of the children who were the focus of this longitudinal study.

Literature Search Terms and Strategies

The literature informing my study of play-based learning draws from scholarship in the areas of early childhood education, child development, and child psychology. I conducted searches using ERIC, PubMed, CINAHL, Psych Info, Academic Premier, Google Scholar, and Web of Science using the following search terms: “play” with “learning”; and “play-based education” with “school readiness” or “school performance”. Because self-regulation was a recurring theme in my initial search, I obtained articles addressing self-regulation that were cited in previously selected articles and built upon this with additional searches using the terms “self-regulation” with “play” and “play-based learning.” I also considered occupational therapy's involvement with play-based learning and self-regulation and searched for articles combining the search terms “occupational therapy” with “play”, “play based learning” and “self-regulation”.

An Evolving Place for Play in the School Readiness Conversation

Early childhood education serves a societal purpose by preparing young children to enter formal schooling and eventually to productive citizenry (NAEYC, 2022). As such, the effectiveness of early childhood practices is contingent upon early learning experiences being relevant to young children's future academic and societal roles. Historically, play has been a preferred pedagogical practice of early learning beginning with Plato's (427-347 BC) first known account of an established system of early childhood education and emerging in twentieth-century models of experiential learning. Play's versatility and broad appeal to young children allows educators to use play effectively in providing children with opportunities to practice future work roles, develop social reciprocity, establish creative approaches to learning and foster self-regulation. While play's usefulness in developing young children's social reciprocity and creativity is undisputed, play's role in preparing children for mastering academic content remains understudied and unclear. As primary education increasingly leans towards mastering academic knowledge, early childhood practitioners and scholars interested in clarifying the nature and value of play-based learning must also demonstrate how play during early childhood supports future academic learning within the framework of current educational trends. The relationship between play and learning needs to be unpacked so that play's status as a pedagogical practice supporting present-day educational priorities can be fully understood.

Early records about the value of play for learning go as far back as ancient Greece and the writings of Plato (427-347 BC). In *Laws* (Book 1), Plato asserted that play could serve an educational purpose by providing young children with opportunities to practice future work roles:

If a boy is to be a good farmer or a good builder, he should play at building toy houses or at farming and be provided by his tutor with miniature tools modeled on real ones. One should see games as a means of directing children's tastes and inclinations to the role they will fulfill as adults. (p.643c)

Plato's articulation of play as relevant to a Grecian version of "work-force training" reflects a utilitarian perspective of education. By embedding society's needs within the content of young children's learning, children acquire the knowledge and aptitudes they must master to enter the work force. In this sense, the purpose of education is to teach children a set of procedures and facts they will need to become successful farmers, carpenters, cobblers, or other trades deemed necessary for the betterment of the greater community. The outcome of education was to produce a competent work force and play was used as a mechanism for children to explore future societal roles; for example, learning how to become a farmer by playing with the tools farmers use.

In the burgeoning industrial context of the nineteenth century, Friedrich Froebel, credited with founding the first kindergarten in Germany in 1838, introduced a humanistic perspective on the content and purpose of early childhood education by advocating for children's social and intellectual development as well as their work skills. Play was Froebel's preferred pedagogical approach due to children's innate desire to explore and discover with others during play. Games, free play, shared activities, and farm work provided the content of children's early learning, and through these experiences, children expanded their social intelligence and aptitude for creativity and collaborative problem-solving. Teachers facilitated children's learning by observing them at play, offering guidance to extend or build upon the children's own discoveries as they explored their interests alongside of peers. The outcome of education was to produce socially adjusted and curious children and play was used as a mechanism of collaboration and joyful exploration with

peers (Allen, 2017). Froebel (1912) wrote “Play is the highest expression of human development in childhood for it alone is the free expression of what is in a child’s soul” (p. 109).

American education philosopher John Dewey (1916) draws upon the ideas of Plato and Froebel in articulating his view of the role of play in early childhood education. Like Plato, Dewey advocated for young children’s education to be grounded in the work of the community and prepare children for their eventual place in society as productive adults. Like Froebel, Dewey recognized that young children learn best when they are actively engaged in meaningful and interesting activities that nurture them socially and intellectually. Dewey (1916) believed young children’s education should consist of *active occupations*, a term he used to describe productive work in the classroom such as gardening or handicrafts. In the classroom envisioned by Dewey, active occupations were designed as the playful pursuit of work. Children were given agency to plant seeds, sew, care for animals and the like, but the intent of these learning experiences was to teach children how to explore academic subjects in line with their interests rather than to learn the procedures of a trade. In *Democracy and Education*, Dewey (1916) illustrates this concept using the example of gardening.

Gardening need not be taught either for the sake of preparing future gardeners, or as an agreeable way of passing time. It affords an avenue of approach to knowledge of the place farming and horticulture have had in the history of the race and which they occupy in present social organization...As students grow mature, they will perceive problems of interest which may be pursued for the sake of discovery, independent of the original direct interest in gardening -- problems connected with the germination and nutrition of plants, the reproduction of fruits, etc., thus making a transition to deliberate intellectual investigations.(p. 197)

Dewey reasoned that play held a place in early childhood education for both intellectual and societal purposes. Education ingrains children with the capacity for deliberate intellectual investigation, thereby creating future visionaries and critical thinkers who can contribute new ways of thinking to society. Children were encouraged to play in the context of work and learned how to manage materials, follow processes, and collaborate with peers in an applied and interesting way. But children were also encouraged to *perceive problems of interest which may be pursued for the sake of discovery*, suggesting that education should evoke children's scrutiny of current knowledge and processes rather than mastery of current knowledge and processes. In Dewey's philosophy of education, young children are emboldened towards novel ways of thinking for the betterment of society, a stance that elevates children's intellectual development as a prime focus of early education.

As education systems became increasingly focused on academics in the mid-twentieth century, educational scholarship shifted towards understanding how children's intellectual and moral development resulted in academic learning (Shoaga, 2015). Play was examined through the lens of how children use language to develop complex thinking and social awareness through play-based experiences and how these competencies translate into preparing children for school.

Piaget (1964) contributed to this discussion with his work on *iteration*, a process of knowledge construction where young children explore and test hypothesis over time in the context of play. Because children are highly motivated by play, Piaget (1964) believed early childhood educators could use play to advance children's mental schemas and therefore understanding of more complex academics. In this sense, play is used as a mechanism to cultivate children's intellectual development in support of academic mastery. The imagination, novelty, and manipulation of reality encountered in play provides children with recurring

opportunities to thoughtfully orchestrate their ideas in collaboration with others. This iterative process primes children to develop many ways of thinking, which they apply in the classroom as creative approaches to learning academic content.

However, learning readiness involves more than intellectual skills; children must be able to function as a member of a learning community if they are to receive and act upon content with purpose. Vygotsky (1978) believed that children use moral judgment to create and follow rules in the context of imaginary or free play, a phenomenon he termed *self-regulation*. Self-regulation is the child's inner dialogue, and this is the mechanism through which children interpret reality, align their actions with social norms, and resolve tension between their immediate desires and the desires of others. Language skills also give young children access to social relationships and self-regulation; these skills in combination with complex thinking provide the child with mechanisms for robust collaboration and apperception while learning (Pramling-Samuelsson, & Johansson, 2006; Souto-Manning, 2017). Social language allows children to build rapport with peers and teachers, thus promoting harmonious relationships and empathy towards others (Slot et al., 2017). Children draw upon their narrative skills to follow language-based instruction, comprehend content, express ideas, ask questions and to build relationships with teachers and peers in the classroom. Because play requires children to use increasingly complex language as they create and enact real and imaginary scenarios, play-based education prompts significant growth in children's narrative language skills (Stagnitti et al., 2016).

Children successful with self-regulation effectively modulate their internal processes to produce adaptive behavioral responses to a range of daily life challenges and experiences. The qualities of play provide an organic context for both cognitive and emotional self-regulation, and children as young as three-years-old can regulate their engagement and interactions during play

(Roiste, 2018). In play, children practice recovery from dysregulation by altering their emotions, behaviors, inhibition, and sensations in response to feedback and social cues, thus developing schemas for more complex dysregulation that arise as the child encounters increasingly complicated scenarios (Rademacher et al., 2021). In other words, play provides children with opportunities to build their learning dispositions by focusing their efforts towards exploring ideas and constructing knowledge with peers. Play sharpens children's ability to manage their impulses and direct their attention towards academic pursuits, both of which are critical prerequisites to classroom participation (Foley, 2017).

Self-regulation, a core predictor of academic achievement, classroom adjustment and social competence, draws upon both metacognitive and social-emotional development as children construct adaptive responses to daily life stressors (Rademacher et al., 2021). Slot et al. (2017) found important correlations between the quality of children's play and the extent to which effective self-regulation strategies developed. Because play was highly motivating and child-directed, the children developed persistence and metacognitive strategies such as reflection and creative thinking. When children are persistent and reflective, they show less cognitive reactivity to stress because they can work through challenges, consider others' perspectives and accept rules most desired by the group (Slot et al., 2017).

When children employ metacognitive strategies, they use their thinking skills to affect their engagement and interactions. For example, children use their planning, monitoring, and reflective skills to remain attentive during learning. Emotional regulation reflects children's knowledge about their own emotions and how to express their emotions given the circumstances. Children use emotional regulation when they resolve conflicts with others and work collaboratively with peers (Slot et al., 2017). In combination, the availability of higher-level

thinking and emotional awareness gives rise to more effective coping mechanisms, allowing children to manage everyday stressors and work through challenges in the pursuit of learning. While play offers a highly motivating context for children to acquire self-regulation, children also develop positive coping in the context of daily routines and interactions with caregivers which often involves exposure to daily stress. Tronick et al. (2015) proposes the *Everyday Stress Resilience Hypothesis*, which describes how recurring exposure to daily stress elicits positive coping and adaptation in young children, beginning at infancy. Play is often an element of young children's daily experiences, however interactions with caregivers, specifically caregivers' responses to infant and young children's stress signals, is also instrumental in supporting self-regulation.

While children need well-established approaches to learning and self-regulation to engage in education, they must also plan, monitor, and reflect on their own actions to acquire and apply content knowledge effectively. Elkonin (1978) introduced the concept of *intentionality*, stating that the planning, self-monitoring, and reflective thinking children use to create and sustain imaginary play are identical to the process children employ during academic learning. Because play expands children's capacity for complex mental representations and awareness of multiple perspectives, play prepares children for learning by teaching them to direct their actions towards a learning goal with purpose and intent (Elkonin, 1978). Because play often involves creative and fluid circumstances, children experience recurring cognitive dissonance as they navigate an array of dynamic roles and experiences. Solutions to these naturally occurring problems require agency, reflection, and intention on the part of the child; thus, concurrently demanding and facilitating intellectual and relational growth towards a desired outcome (Bodrova et al., 2013). Play entrains children to view challenge as a positive form of manageable stress, a mindset that

drives children's learning readiness in that they respond to challenge with creativity and confidence (DiCorcia & Tronick, 2011; Foley, 2017).

The scope of early childhood education has evolved significantly from its humble roots of allowing children to practice future work roles to its current emphasis on children's early literacy, numeracy, and scientific thinking. The path to school readiness runs through well-established learning readiness traits, constructed on a strong foundation of children's early language, cognitive and social development. As children advance in their language, cognitive and social development, they construct positive learning dispositions such as self-regulation, social relationships, and approaches to learning. These learning dispositions provide the fertile ground in which knowledge acquisition and academic advancement takes root and paves the way for children to experience success in school. However, learning dispositions are notoriously difficult to quantify and compare across cohorts of children, making the construct of school readiness disconnected from the content of many school readiness measures.

The Construct and Measurement of School Readiness

The purpose of early childhood education is to prepare children for a successful transition into formal education and adulthood (NAEYC, 2022). When standardized assessments of school readiness place academic knowledge front and center, the role of learning dispositions in fostering school readiness is left unmeasured and assumed. Performance on school readiness assessments becomes the default definition of school readiness and the perceived priority of early childhood education. But if school readiness becomes synonymous with academic content mastery alone, the foundational processes fostering children's receptivity to knowledge acquisition and acclimation to the group learning context eventually dissipates from the school readiness conversation.

Learning readiness can be thought of as a culmination of a lifetime of experiences that prepare children to enter school and modify their actions in response to feedback, establish relationships with peers and adults, and apply new knowledge within a variety of learning contexts. Hustedt et al. (2018) found that kindergarten teachers favor social and self-management skills for incoming kindergarteners; specific examples include caring for personal needs, exhibiting self-control, communicating needs and preferences, modifying behavior, and interacting cooperatively. Within this approach, children cannot master academic knowledge unless they have developed the processes that support learning and classroom assimilation. Therefore, early childhood education emphasizing social relationships, self-management, and positive approaches to learning fosters the kinds of learning readiness aptitudes valued by teachers (Eggum-Wilkins et al., 2014; Ginsberg, 2007; Pistorova & Slutsky, 2018). These approaches have had a wide-spread impact on the American education system from the late-twentieth century to the present day.

Children's social and intellectual development as the desired outcome of early childhood education remained essentially unchallenged in the United States until 1983, when the National Commission on Excellence in Education issued a report entitled *A Nation at Risk: The Imperative for Education Reform*. This Presidential-commissioned report described education in the United States as "a rising tide of mediocrity" citing American children's poor academic performance, rampant illiteracy among adults and teens and declining scores on standardized achievement tests measuring academic competency. The authors recommended sweeping educational reforms with higher expectations of student performance and rising academic achievement test scores as the cornerstone of a stronger American education system (National Commission on Excellence in Education, 1983). Congress responded by enacting educational

reforms, beginning with *America First* (1991), a comprehensive education reform act aimed at improving school readiness.

America First (1991) defined school readiness along five domains: physical health and wellbeing, social-emotional development, language development, general knowledge and cognition, and approaches to learning and mandated that States devise procedures for defining and evaluating school readiness when children enroll in kindergarten. Because general knowledge, cognition, and language are most readily quantified and compared across cohorts of children, these factors became the focus of school readiness assessments in many States. Subsequent educational reform legislation, including No Child Left Behind (NCLB; 2002) and Race to the Top-Early Learning Challenge (RTTT-ELC; 2013), reinforced the practice of administering standardized assessments of content knowledge to young children prior to their enrollment in kindergarten thus paving the way for the content of these measures to assume prominence in the school readiness conversation (Hustedt et al., 2018).

Occupational therapy scholarship shows a limited view of kindergarten transition and school readiness for typically developing children. McBryde et al. (2004) found that occupational therapists often base school readiness recommendations on neuromaturation and developmental skills rather than consideration of factors such as self-management and socialization valued by teachers and parents. Successful kindergarten transition is predictive of long-term academic success and given the emphasis within occupational therapy to expand practice to include wellness and population health, there is a need to understand how experiences in early childhood prepares children to transition into the role of learner and classmate as they navigate kindergarten (AOTA, 2018; Burchinal et al., 2008; Datar & Gottfried, 2015). This suggests a need for stronger

understanding within the field of OT related to the complexity of kindergarten transition and how early childhood experiences prepare children for school.

As public policy in the twenty-first century continues to emphasize standardized assessment scores as metrics for high-quality early childhood and kindergarten programs, early childhood educators grapple with their role in preparing children for school (Pistrova & Slutsky, 2018). Centers emphasizing academic instruction may be influenced by public pressure for young children to perform well on assessments of school readiness (Fleer, 2021; Nicolopoulou, 2010; Taylor & Boyer, 2019). However, academic instruction in preschool is controversial; some early childhood educators have expressed concern about the developmental appropriateness of direct instruction practices (NAEYC, 2017; Zosh et al., 2017). This philosophical split left some early childhood programs grounded in play-based, child-directed experiential learning while others emphasized direct academic instruction. Durkin et al. (2022) stated that direct instruction in early childhood education produces short-term gains in constrained literacy skills (e.g., recognizing the alphabet), but not the unconstrained literacy and numeracy skills associated with long-term academic success (e.g., comprehension, problem-solving). This suggests that content-heavy preschool curricula most aligned with school readiness assessments may fail to capture the foundational aptitudes children need for long-term academic achievement.

Longitudinal studies of school readiness suggest that positive approaches to learning, social relationships, and self-regulation as strong predictors of child's preparedness to enter kindergarten and succeed in school long-term (Buchinal et al., 2008; Coolahan et al., 2000; Duncan et al., 2007; Goodrich et al., 2015; Vitiello & Greenfield, 2016). Play-based experiences may provide recurring opportunities to develop socialization, self-management and learning approaches, which supports a child's readiness for school by preparing them to follow classroom

routines, attend to teachers and peers' social cues and use creativity and problem solving to master increasingly complex concepts (Rushton, Juola-Rushton & Larkin, 2010). In contrast, Durkin et al. (2022) found that state-run preschools are often built on a foundation of academic content and rote practice in academic skills. Children who receive instruction in academic content during preschool show short-term gain in their academic knowledge on standardized assessments, but more long-term challenges with disciplinary action and advanced conceptual thinking in higher grades (Durkin et al., 2022).

The National Association for the Education of Young Children (NAEYC) and the American Academy of Pediatrics (AAP) emphasized the value of developmentally appropriate teaching practices that deliver high quality instruction at optimal times within the child's developmental window of mastery. Children ages three to five years learn best when they are actively constructing knowledge within a social context, with the freedom to collaborate with others and explore their interests (American Academy of Pediatrics, 2016). Unlike direct instruction methods where teachers guide children's engagement towards a defined product of learning, allowing children to develop their curiosity, collaboration, critical thinking and communication prowess through participation-focused pedagogies is more conducive in fostering twenty-first century learners (Pistorova & Slutsky, 2018).

Pedagogical practices that cultivate children's intrinsic capacity for discovery and problem-solving further align with the most in-demand aptitudes of the twenty-first century learner: "critical thinking, communication, collaboration and creativity" (Pistorova & Slutsky's, 2018, p. 495). These authors suggest that as information becomes increasingly available through technology, educational practices must shift towards building children's judgment in discerning and applying knowledge rather than focusing efforts towards acquiring knowledge (Pistorova &

Stutsky, 2018). Nilsson et al. (2018) advocated for a *play-as-learning* approach to early childhood education, where learning “is not just understood in the narrow cognitive sense...but more broadly as transformations driven by different kinds of experiences that lead to sustained change” (p. 232). Pramling-Samuelsson & Johansson (2006) argued that play and learning in young children are integrated, in that the processes employed by young children in play are identical to those used in the context of early learning. Play may offer a more robust context for children to develop their natural curiosity and inquisitiveness, and this could explain why children immersed in play-based learning contexts arrive at school with well-established approaches to learning and competency building positive relationships.

In this sense, school readiness arises from learning readiness, as the integration of language, cognitive, and social development allows children to construct productive interactions and behavioral responses to classroom learning. Therefore, it is essential to consider what pedagogical practices are most fruitful in cultivating full-scale early child development during the early childhood years. But it is equally important to show why robust early child development and the formation of learning dispositions matters in the larger scheme of educating young children. If the concept of school readiness dilutes to knowledge acquisition alone, the nature of early childhood education becomes lost in the mist. If play is to retain its relevance in early childhood education, play will need to pivot once again and show how children’s play can be leveraged to support academic learning.

Play-based Learning: A Pedagogical Approach to Early Childhood Education

Play-based learning occurs when adults scaffold the educational environment towards a learning goal while simultaneously encouraging child-led exploration and discovery through guided play (Skene et al., 2022; Weisberg et al., 2013; Zosh et al., 2018). The foundation of

play-based learning is guided play, where the adult curates a learning context towards an educational goal and the child guides their play within that context by maintaining agency and some degree of freedom to explore and discover (Zosh et al., 2018). Guided play is positioned as a middle ground, pedagogically between free play, where the child has sole agency in initiating and implementing play, and direct instruction, where the child receives information from an adult. Guided play allows knowledge and feedback to be embedded within the motivation, joyfulness, and discovery children experience during play, therefore capitalizing on the active engagement play provides while also extending and supporting children's exploration and learning (Weisberg et al., 2013; Zosh et al., 2018). See Figure 2.2 for a graphic illustration of play-based learning's relationship to free play and direct instruction.

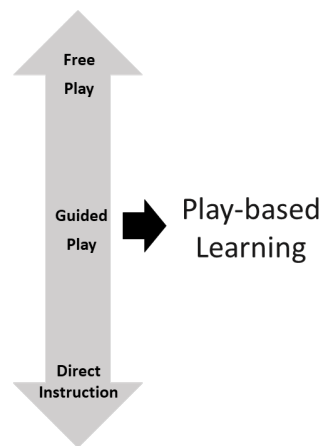


Figure 2.2. Graphic representation of the continuum between free play and direct instruction. Guided play is the philosophical middle ground, and this informs the basis of play-based learning pedagogical approaches.

Guided play is distinguished from other forms of play (i.e. free play or imaginary play) by three principles: (a) children have a degree of agency and choice in how they interact within the learning context, (b) children and their teacher collaborate with one another throughout the guided play, and (c) adult guidance is flexible and responsive to the interests, needs and progress of the child (Skene et al., 2022; Weisberg et al., 2013; Zosh et al., 2018). The planning and

implementation of effective play-based learning requires the skillful design of educational environments and reflective observation of children's processes for knowledge construction. The element of agency provides children with a sense of motivation and mastery and is especially important in distinguishing play-based learning from games or other playful practices teachers employ in the classroom. In addition, the role of the adult as facilitating rather than directing learning allows children to construct knowledge from their own self-guided inquiry, thus deepening their conceptual understanding of processes (Skene et al., 2022; Taylor & Boyt, 2019; Zosh et al., 2018).

For practitioners and scholars to show how academic learning unfolds in the context of play-based education, the pedagogical practices under examination must have a high fidelity in both the conceptualization and implementation of guided play, i.e., child agency, teacher-student collaboration, and facilitative feedback. In addition, the academic mastery arising from play based learning needs to align with curricular goals and be measurable in the context of summative or formative assessments. Children's learning in elementary school is often measured through standardized assessments of literacy, math, and science, so examining children's mastery of these subjects, following play-based learning's influence, is helpful in ascertaining play's power in facilitating children's school readiness.

Bollinger and Myers (2019) describe how children are expected to read and write with some fluency by the end of their kindergarten year, making literacy a major focus of elementary education. Children acquire literacy through immersion in language-rich environments where social interactions build children's awareness of language structure over time. As children reach the age of six years old, and are asked to read and write, they draw upon their language proficiency to formulate and express their ideas and to understand the perspective of others.

Without a strong foundation in narrative language, thought representation, meaning making, and social connection, children struggle to become competent writers as they are unable to formulate ideas in response to writing prompts (Bollinger & Myers, 2019).

When children are exposed to writing through play-based pedagogy, they participate in the writing process through symbolic expression, such as building, drawing and dramatic play. For example, children may express their ideas related to family by building a house or role-playing father and baby, two distinct but equally valued methods of expression that give children a sense of agency and control. By allowing children to represent their ideas through multiple forms of expression, writing feels more manageable to children, and they can advance the complexity of their expression as they are developmentally ready. The teacher observes the children's natural writing processes and facilitates their growth by drawing upon their current interests and competencies, for instance, a teacher may encourage a child to write a sign to hang on the building she constructed or draw a menu for the restaurant she is creating. Bollinger and Myers (2019) found that when young children view writing as a system of meaning-making, where drawings, stories, and written words are connected, they naturally pursue writing activities, thus developing their mastery of spelling and letter formation. When children are given opportunities to express their ideas through both conventional (i.e., writing a sentence) and unconventional (i.e., drawing a picture) means, they become more engaged, interested, and motivated for the process of writing and therefore become competent writers (Bollinger & Myers, 2019). Allowing children autonomy to approach writing as they are interested and developmentally ready aligns well with occupational therapy practice. When children engage in writing activities that are meaningful and appropriately challenging, they are more likely to pursue writing and, in turn, improve their competency as writers (Law, 2002).

Allowing learning to naturally unfold within a flexible and supportive context also proves to be successful in fostering young children's math competency. Vogt et al. (2018) used a randomized controlled trial to explore the mathematics competency among three groups of kindergarten children who either received direct instruction in math, play-based instruction through games, or the pre-existing math curriculum. The authors found that children in the play-based group made higher learning gains than either the control or direct instruction group. For instance, the scope and sequence of math instruction was identical in both experimental groups, however, the direct instruction group employed teacher-led learning activities with prescribed materials and tasks while the play-based group employed games and cards that allowed children autonomy and exploration in interacting with the learning materials. The authors concluded that the play-based activities gave children recurring exposure to math concepts within a motivating and supportive social context, allowing for variation in how the learners progressed with the materials. Because the children learned alongside of, and from one another, exploration was valued over a single correct sequence or outcome. As a result, children acquired deeper conceptual understanding of math concepts and felt less pressured to achieve mastery outside of their own natural timeline.

Science and engineering are valued priorities within the educational system, and children build their science-based thinking during the early childhood years. Based on the Next Generation Science Standards, an early learning science framework published by the National Research Council, Miller and Saenz (2021) developed an observation protocol measuring children's investigation practices, ability to connect and apply ideas and basic science content. The authors found that children who were allowed to play uninterrupted with natural materials in a social context showed more frequent and sophisticated science and engineering thinking than

children in the direct instruction group who were taught scientific principles in an adult-directed, knowledge transmission format. Because children were evaluating and sharing ideas among themselves through their playful interactions, they were more invested in the process of discovery and were challenged to use their thinking and communication skills to achieve a shared outcome. Teachers supported children in this process by modeling questions and providing specific information when asked. The authors concluded that the child-led play-based pedagogy allowed children to use their own observations and ideas to affect the outcome of their play, thus they learned by “doing” rather than being “given the answer” (Miller & Saenz, 2021).

When implemented with fidelity to the principles of guided play, play-based learning deepens both children’s conceptual understanding of academic concepts and their engagement in the learning process (Taylor & Boyt, 2019; Zosh et al., 2018). Drawing upon Piaget’s (1964) original premise that knowledge is a process and series of transformations, Zosh et al. (2018) states that the active manipulation of concepts occurring in play allows children to make meaningful connections to new information as they practice and build upon their existing knowledge. Piaget (1964) articulated this by saying.

Knowledge is not a copy of reality. To know an object, to know an event, is not simply to look at it and make a mental copy or image of it. To know an object is to act on it. To know is to modify, to transform the object, and to understand the process of this transformation, and as a consequence to understand the way the object is constructed. (p. 176)

In making this statement, Piaget articulates the relationship between pedagogy and learning outcomes, in that how we invite children to engage in learning affects the extent to which they achieve learning. When we ask children to replicate what is known, their learning is constrained

to knowledge duplication. When we ask children to explore, discover, and modify knowledge, they become knowledge creators, thus illustrating why play-based learning facilitates academic mastery.

However, research examining learning outcomes following play-based education is fraught with conceptual and implementation challenges. For example, Skene et al. (2022) conducted a systematic review and meta-analysis of play-based pedagogical practices by comparing guided play, direct instruction, and free play in relation to children's development and learning. Their analysis included 39 studies published between 1977-2020, with learning outcomes divided into four categories of literacy, numeracy, executive functions, and socioemotional outcomes. The authors found that guided play showed strong effects in math, shape knowledge and task switching in comparison with direct instruction. The analyses showed weak effect size for guided play's impact on literacy and language, but surprisingly no evidence of effect with pro-social behavior and self-regulation. However, of the 39 articles examined, only seven were ranked as highly congruent with guided play conceptualization and four articles with implementation of guided play as a learning pedagogy. The authors further reported that the meta-analysis confidence interval and effect for collections of articles often contradicted the findings of the individual articles themselves, suggesting that fidelity to play-based learning principles likely diluted the outcomes of the studies (Skene et al., 2022).

Skene et al. (2022) found equivalent learning outcomes in math between guided play and direct instruction interventions in the areas of spatial complexity of drawings, and decoding math problems, rote counting, and number recognition. Guided play was favored slightly over direct instruction in the areas of block building (.30) and spatial visualization (.35) and medium effect size (.59) favored direct instruction over guided play in mental rotation. Skene et al. (2022)

found equivalent learning outcomes related to reading between guided play and direct instruction interventions in the areas of reading fluency and general vocabulary, and significant gains in total language scores as measured by the Preschool Language Scale (PLS) favoring direct instruction over guided play. Guided play showed a significantly greater positive effect on children's time spent in peer interactions than direct instruction, yet no significant effects were found between guided play and direct instruction on measures of social disruption, disconnection, and interaction or speech performance. Guided play was favored over direct instruction with a measure of emotion matching, yet no difference was found for comforting behaviors and social interactions (Skene et al., 2022).

Guided play relies on an children's agency and engagement, on-going collaboration with teachers, and a carefully designed learning scenario where teachers facilitate learning with reflective feedback in support of the child's own inquiry (Weisberg et al., 2013; Zosh et al., 2018). When practitioners and researchers label pedagogy as play-based, the implementation of the teaching practices must fully align with guided play principles. Specific to the Skene et al. (2022) meta-analysis and systematic review, one of the most glaring deviations from the principles of guided play is found within the intervention descriptions of the two research articles included in the executive function batch. For example, Skene et al. (2022) shows a quasi-experimental study where an undisclosed self-regulation intervention was delivered to classrooms of three- to six-year-old children by a researcher for less than five sessions. In concluding that guided play produced no effect on behavior regulation or inhibitory control, the authors draw upon findings from an intervention that was likely disconnected from the core principles of guided play. The short-term exposure of children to the self-regulation intervention and the fact that researchers implemented the teachings without collaborating with the children

suggests that the practices examined in the study would not rise to the standard of play-based learning. Therefore Skene et al.'s (2022) conclusion that guided play produced no effects on self-regulation may reflect poorly conceived and implemented learning activities labeled as “play-based education” rather than the lack of effectiveness of well-conceived and implemented play-based pedagogical practices. Play-based learning is a burgeoning area of scholarship, with a long road ahead in streamlining terminology and establishing a degree of erudition that would give rise to consistency in pedagogical practices and thus research findings. Vygotsky (1967) said that play produces long-term transformation in children, and the changes brought about through play would elude research methods employing short-term, standardized measures. This points to the advantages that direct instruction practices have over play-based learning in twenty-first century education system emphasizing learning accountability and measurable learning progress. When preschools emphasize constrained knowledge and take pre and posttest measures to show growth in children’s learning, the gains children make are readily observed and quantified. The growth brought about in children’s learning through play requires a more personal, nuanced approach in both measurement and desired learning outcomes.

Lillard et al. (2013) completed a descriptive review of the evidence that pretend play positively impacts children’s health and development and found inconclusive results. Their review focused on three primary questions related to pretend play: 1) is play *crucial* for optimal development, 2) is play the *exclusive* route to child development, and 3) is play a *byproduct* of another, equally important activity of child development. The authors considered research focused on several domains of development, including language, narrative and emotional regulation; executive function and social skills; reasoning and problem solving; and creativity and intelligence. The authors concluded that pretend play is consistently associated with gains in

narrative, language and emotional regulation but there is not sufficient evidence to infer causality or significance. For executive function and social skills, the authors conclude that the evidence leans against claims of play as *crucial* but that play could be an important *byproduct* of other activities preferred by children. The authors conclude that there is no compelling evidence supporting *causality* or *associations* among play and children's development of reasoning and problem-solving skills. For creativity and intelligence, find inconsistent correlational findings connecting play and creativity and intelligence, but this evidence was too weak to infer *causation* with play.

Lillard et al. (2013) provides an exhaustive review related to relationships between pretend play and child health and development, and did not include guided play, the foundation of play-based learning, in their deliberations. The authors state explicitly that while they draw no conclusions about play's exclusive contribution to children's learning, positive adult interactions seem to be a common finding among articles reporting positive educational experiences for young children. The author's implications suggest that play is an important *byproduct* of productive learning environments for young children but may not be any more or less significant than the social interactions, intrinsic motivation, and participatory-focused learning commonly found in play-based centers.

Parent and Teacher Perspectives on Play-based Pedagogy

While play-based pedagogy has wide support and endorsement within the early childhood education community, parents and kindergarten teachers report mixed views on the impact of play-based learning in preparing young children for kindergarten and report nuanced and contradictory definitions of play and play-based learning. Parents and teachers play a significant role in supporting young children's development and subsequent preparedness for entering

kindergarten, and their personal and professional beliefs influence the experiences children are offered.

Parent Perceptions of Play-based Learning and School Readiness

Parents play a pivotal role in supporting their children's readiness for school. Parents make decisions as to when and where their child will enroll in preschool or kindergarten and create routines that support their child's overall development and well-being prior to school entry. Parent beliefs are a significant driver of parenting decisions (Barbarin et al., 2008), and parents increasingly favor adult-led, structured activities for their children both in the context of leisure (Ginsberg, 2007; Gray, 2011) and in school (Belfield & Garcia, 2014; Shoaga, 2015). Therefore, studies exploring parents' view of play as a pedagogical approach in early childhood education adds important context in parent decisions related to preschool and kindergarten enrollment.

Parents' views of play in general and their own positive lived experiences with play influence the extent to which parents see play as contributing to their child's learning. Fisher et al. (2008) used a national, geographically diverse internet survey to elicit the views of 1140 mothers of young children related to play and academic learning. The survey consisted of 26 items describing both free play (e. g., how often does your child pretend with baby dolls or stuffed animals) and structured forms of play (e. g., how often does your child go on trips to the library) and asked mothers to indicate if they viewed the activity as play and rate the extent to which they found learning value in this activity for their child. Using a univariate analysis, the researchers paired mothers perceived learning value with the frequency of an activity and found that mothers engaged their children more often in the activities they felt were higher in learning value. Mothers with the highest conceptualization of play tended to ascribe more learning value to all forms of play, but in general, mothers were more likely to associate learning with structured play

activities such as trips to the library or reading books with an adult (Fisher et al., 2008). This study suggests that parents perceive learning unfold in the context of adult structure unless they have extensive history themselves with play; then they may be more aware of how learning unfolds within a playful context.

Parents also reported a positive view of play-based pedagogical approaches in early childhood education when the academic content these lessons supported was apparent. O’Gorman and Ailwood (2012) conducted focus group studies to investigate the perception of play in the context of learning among 26 parents of four-to-five-year-old children in the year prior to their enrollment in elementary school. Parents described a positive view of play-based pedagogy when they recognized that their child received embedded literacy and math content in the context of play and appreciated their child’s enjoyment and active involvement during play-based lessons. However, other parents felt that children needed adult structure to adequately learn these academic lessons and saw value in play only as a mechanism for socialization and as a respite from actual school. Because parents interpreted play differently, they arrived at different conclusions as to how play supported learning in the context of their child’s educational experience (O’Gorman & Ailwood, 2012).

A desire for their child to be well-prepared for kindergarten academically also influenced how parents perceived play-based pedagogy in the context of early childhood education. Breathnach et al. (2016) conducted semi-structured interviews with eight parents of four and five-year-old children to explore their views on play-based learning in the context of early childhood education. Like findings by O’Gorman and Ailwood (2012), parents in this study found value in play-based learning when they saw a direct relationship to their child’s academic gains. For example, parents reported positive views of play when their children were guided by

teachers towards a defined and obvious learning goal, such as when teachers engaged children in block play and modeled mathematical concepts such as comparison and quantity. However, when children were allowed to free play at centers or with art supplies, parents found no educational value due to the disparate learning objectives and lack of obvious focus towards a specific learning outcome (Breathnach et al., 2016). This suggests that when parents see a direct connection between play and academic learning, they report a more favorable view of play-based pedagogy in early childhood education.

Teacher Perceptions of Play-based Learning and School Readiness

Play-based learning for kindergarteners has declined significantly in the United States as teachers report feeling pressured to increase their instructional time to meet State-required academic content standards (Lynch, 2015). Kindergarten teachers further report contradictory and nuanced views of play-based pedagogy, influenced by their own personal views of play and the extent to which they see play as a precursor to academic learning (Feesha & Pyle, 2016).

Using survey data from sixty-nine kindergarten teachers, Feesha and Pyle (2016) found variation in how teachers defined and incorporated play and play-based learning in their classrooms. Teachers participating in the survey considered *play* as a primarily social experience for young children while *play-based learning* could be both social and academic in nature. Most teachers (91%) said play was a feature of their classrooms, but only 19% reported using play-based pedagogy, despite reporting that they had been trained to implement play-based methods. Teachers described challenges incorporating play-based pedagogy because they perceived it as time intensive which interfered with their ability to deliver a full kindergarten curriculum within the time frames allowed for each academic standard (Feesha & Pyle, 2016).

Lynch (2015) conducted a netnographic study of kindergarten teachers' perceptions of play by thematically analyzing the content of seventy-eight public message board discussions commented on by teachers. Through prolonged engagement and profile verification, the research team focused on the comments of verified public kindergarten teachers, closely following threads relevant to their perceptions and inclusion of play. Kindergarten teachers expressed a range of beliefs related to play, and its role in school readiness and kindergarten. Academic standards were a common theme in the discussions, with some teachers believing that children coming from play-based backgrounds were behind their non-play-based peers in meeting academic standards, while others believed the more academic-focused preschools gave parents a narrow view of young children's learning as solely focused on producing written work. Teachers also shared that when they included play in their classrooms, they did so under the guise of academics by labeling free play centers as "work centers" or "active learning centers" (Lynch, 2015). These findings illustrate how the emphasis on academic standards in kindergarten influences both teachers' perceptions of children's readiness for kindergarten and their daily classroom practices.

Feesha and Pyle (2016) and Lynch (2015) offer qualitative analysis of play and play-based learning from the perspectives of kindergarten teachers and described a narrative where kindergarten teachers' perceptions and incorporation of play is influenced by perceived pressure to deliver academic content aligned with educational standards. Using nationally representative data from public school teachers participating in the Early Childhood Longitudinal Study (ECLS-K:1998 and ECLS-K:2011), Bassok et al. (2016) compared 1998 (N=21,000) survey results with 2010 (N=18,000) survey results to measure changes in public school teachers' perceptions and academic requirements of kindergarten children. The authors found significant

changes ($p < .05$) between the first reporting period (1998) and second reporting period (2010) in all five dimensions of kindergarten experience: kindergarten teachers' beliefs about school readiness (i.e., what are important skills for children to have entering kindergarten?), time spent on academic and nonacademic content (i.e., how much time for reading versus art?), classroom organization (i.e. dedicated space for free play), pedagogical approach (i.e., direct instruction time), and use of standardized assessments (i.e., frequency and value of standardized assessments) (Bassok et al., 2016).

Bassok et al. (2016) found that kindergarten teachers report a significant increase in instructional time devoted to more complex math and literacy content in 2010 in comparison with 1998. For example, spelling was *never* taught by 44% kindergarten teachers in 1998 compared to 17% in 2010; writing math equations to solve simple word problems was *never* taught by 60% of kindergarten teachers in 1998 compared with 30% in 2010. While 71% of kindergarten classrooms offered an art area in 2010, 92% offered dedicated art space in 1998. Kindergarten teachers in 2010 report modest increases in instructional time devoted to math, reading, social studies, and science but significantly less time in non-academic subjects such as music and art; between 37%-50%, respectively, of teachers report *never* teaching these subjects in 2010 compared with 11%-18%, respectively, in 1998 (Bassok et al., 2016).

Kindergarten teachers also reported moving away from child-selected activities (including free play and physical activity or recess) in favor of more didactic instructional time in 2010 compared with 1998. Kindergarten teachers rate academic skills entering kindergarten (e. g., counting to 20, knowing the letters of the alphabet, and using a pencil correctly) as *very important* or *essential* at more than twice the rate in 2010 as they did in 1998. Finally, kindergarten teachers' high value of children's individual improvement in schoolwork, effort,

behavior, cooperativeness, and ability to follow directions remained essentially unchanged between 1998 and 2010. The authors found significant increases in teachers' view of the importance of individual children's achievement relative to the rest of the class (47% in 1998 versus 67% in 2010) and achievement relative to educational standards (57% in 1998 versus 79% in 2010). These findings illustrate that teachers' value of "soft skills" (e.g., social relationships, self-management, and approaches to learning) remains constant across the comparison period but the importance they place on standardized and comparative assessments has risen significantly (Bassok et al., 2016).

Bassok et al. (2016) shows that teachers reported that kindergarten expectations, content and teaching practices has shifted between the two study periods of 1998 and 2010, with free play, physical activity, nonacademic subjects and child-selected activities declining and more advanced and specific academic instruction rising. Standardized assessments and comparative metrics are also increasingly valued by kindergarten teachers, though more than 90% continue to emphasize social emotional and executive functioning aspects of the kindergarten experience (e.g., following directions and getting along with others) as *very important* or *essential*.

As kindergarten becomes increasingly academic in focus, parents and teachers feel tension to facilitate children's competency within academic subjects. Time constraints to deliver more complex academic content has influenced kindergarten teaching practices (Bassok et al., 2016) and parents' views of play in early childhood education (Fisher et al., 2008). Teachers and parents want to see a more explicit connection between play-based learning and their child's school readiness and kindergarten performance, specifically in the areas of academic competency (Feesha & Pyle, 2016; Fisher et al., 2008; O'Gorman & Ailwood, 2012). The challenge for early childhood educators, scholars and researchers is to explicate the relationship between

unconstrained academic skills (e. g., social relationships, self-management, and approaches to learning) and constrained academic skills (e. g., letter recognition and counting) by showing the developmental progression and interconnectedness of these areas throughout the early childhood years. Furthermore, researchers need to show that play-based learning delivers the foundational thinking and understanding needed to master academic content in a manner that it readily observable by parents and teachers.

Conclusion

The philosophies, theories, perceptions, and studies of play-based learning brought together in this critical synthesis help us understand how play-based learning situates in the broader school readiness conversation and offers direction for future research aimed at exploring play's relevance in preparing 21st century children for school. Educational theorists Pistorova and Slutsky (2018) stated that the most in-demand aptitudes of the 21st century learner are critical thinking, communication, collaboration, and creativity. As information becomes increasingly available through technology, the authors state that educational practices must shift towards building children's judgment in discerning and applying knowledge. When early childhood education practices focus on the process of learning, children thrive socially, intellectually, and academically and are well prepared for a successful kindergarten experience (Bollinger & Myers, 2019; Miller & Saenz, 2021; Vogt et al., 2018). But research illustrating the connection between play-based learning and children's later academic achievement is limited.

Kindergarten performance is a broad construct, encompassing many dimensions of the student role. When children are well prepared for school, they arrive at kindergarten ready to learn, perform well as a classmate and learner and adapt to the everyday stressors of acclimating to their new student role. Parents and kindergarten teachers are well positioned to describe these

facets of children's experiences. Parents have in-depth knowledge of their children, can offer insights into transformative life events, and describe how children are maturing over time. Kindergarten teachers have in-depth knowledge of how children are performing in school by comparing their interactions and accomplishments in the context of their classroom expectations and peer performance. Merging the perspectives of both parents and teachers in describing the experiences of specific children entering kindergarten after years of play-based early childhood education provides a conduit for a comprehensive exploration of how play-based pedagogy influences kindergarten readiness and transition.

When play-based learning is implemented with fidelity to the core principles of guided play, children thrive socially, intellectually, and academically (Zosh et al., 2018). However, given the fragmented and diffuse state of play-based learning literature, I will situate my dissertation within the broader context of how parents and teachers describe how children fared in kindergarten following play-based learning. Taking a more open-ended and exploratory approach in designing my study will allow me to capitalize on my own professional lens as an occupational therapist in that I will seek to understand the interconnectedness between the children's background with play-based learning and how they navigate a major life transition of becoming kindergartners.

My dissertation aims to understand and describe parent and teachers' perceptions of how children fare in kindergarten following play-based early childhood education, with an emphasis on children's preparation, performance, and adaptation over the course of a school year. I will accomplish this by designing a qualitative study using cross-case methodology so that parent and teacher's insights are emphasized, and findings are situated within their natural context. In the subsequent chapters of this dissertation, I describe my research methods then offer manuscripts

centering on school readiness, kindergarten performance, and everyday adaptability of the four children who were the focus of my study.

CHAPTER THREE: METHODS

Cross-case study is the analysis and synthesis of multiple cases, allowing for comparisons among cases. Cross-case methodology helps the investigator understand how context affects an outcome and is useful when the researcher seeks to describe a phenomenon as it naturally unfolds over time (Creswell & Clark, 2018; Yin, 2018). Critical to high quality case study research is the defining and binding of the “case”, or unit of study (Glesne, 2016; Yin, 2018). Stake (1995) described a case as “a specific, complex, functioning thing” or a “bounded system in context” (p. 2). Including multiple case studies in the research design allowed me to compare multiple perspectives on play-based learning and kindergarten transition and to explore patterns across the cases throughout data analysis (Yin, 2018).

This study was approved through the Colorado State University Institutional Review Board (approval 19-9519H). Poudre School District’s Research Director also authorized this study via a written approval letter received November 19, 2019.

Research Design

I defined each case in this study as a triad of the child, his or her parents, and the child’s kindergarten teacher. Congruent with cross case study approaches, I used in-depth analysis and prolonged engagement with each participant triad to gain an understanding of participant perspectives and the dynamic interplay of individuals, families, and communities navigating a substantial life transition (Jonasdottir et al., 2018; Yin, 2018). I followed four 5-year-old children over the course of their kindergarten year to capture a more in-depth view of their adaptability from the perspective of their kindergarten teachers and parents. I collected data at the onset, midpoint, and conclusion of the school year and analyzed each data cache to inform subsequent data collection. Through constant comparative analysis, I developed and explored patterns within

and across cases over time; these patterns informed my initial findings and subsequent data collection efforts (Yin, 2018).

Participants

I enrolled four participant triads as cases in the study; see Table 3.1 for details. Mothers were the parent informants for all four children and three of the four invited kindergarten teachers participated. Kindergarten teachers represented elementary schools with three different curricular foci: Core Knowledge, International Baccalaureate, and Science, Technology, Engineering and Math (STEM). The research team deemed dissimilar kindergarten foci desirable to offer variation in kindergarten experience, but this was not a participant requirement.

Participant Descriptions

I describe the children who were the focus of the participant clusters below. Pseudonyms are used for all participants throughout this dissertation.

Addy

Addy is the youngest of two sisters. She lives with both of her parents and maternal grandfather. She attends a Core Knowledge school, and her kindergarten teacher has 28 years of teaching experience.

Isaac

Isaac is the oldest of two brothers. He lives with both of his parents. He attends a Science, Technology, Engineering, and Math school and his kindergarten teacher has fourteen years of teaching experience.

Leah

Leah is the youngest of two siblings. She has an older brother, and they live with both of their parents. She attends an International Baccalaureate school, and her kindergarten teacher has eleven years of teaching experience.

Nadine

Nadine is the youngest of two siblings. She has an older brother, and they live with both of their parents. She attends an International Baccalaureate school and her kindergarten teachers' years of teaching experience is unknown.

Participant Selection

Using Yin's (2018) purposive sampling technique, I recruited parent participants based on their child's enrollment at a Reggio Emilia-inspired, play-based early childhood center in Northern Colorado (subsequently referred to as "the center"). Participants appear to represent the geographical area, as the United States Census Bureau (2022) describes this region as 84.5% White with a median household income of \$72,932 and 56.6% of adults having earned a bachelor's degree or higher. The center itself is a laboratory school associated with a four-year university and is primarily tuition-based. This is the overall population description from which the sample was selected.

Participants were recruited via three email invitations sent in May and June of 2020 from the center's executive director. Inclusion criteria for participants included:

- Intent to begin kindergarten in the 2020-2021 school year.
- At least two academic years of enrollment at the CSU ECC immediately prior to kindergarten enrollment; with a preference for children who have been enrolled full-time at the CSU ECC since infancy.
- Willingness of the family to provide access to home and educational environments and records over the course of the child's kindergarten year.
- Willingness of the child's teacher and school to participate in the study.

- Compliant with all school enrollment criteria set by the child’s school district (age, immunizations current, etc.)
- Home and school within a 20-mile radius of the CSU ECC
- Consensus from the CSU ECC staff and the child’s family that they are ready to enter kindergarten.

Exclusion criteria included:

- Lack of fluency in English with the parents or children
- Known or suspected disability that would require an individual special education plan.
- Extensive individual involvement with me in my role as Occupational Therapy Clinical Supervisor over the course of their time at the CSU ECC
- Failure to meet any inclusion criteria, such as disagreement about school readiness or uncertainty about 2020 enrollment.

Twenty-nine children met the minimum criteria of two academic years of enrollment at the center and twelve children met the preferred criteria of full-time enrollment beginning in infancy during recruitment. I initially recruited from the pool of twelve children who met the preferred criteria. Yin (2018) suggests four participant cases as optimal for cross case study research as this number allows for both variation and thorough exploration of participant perspectives. Four parents agreed to participate and were enrolled in the study from the preferred participant pool; thus, I did not extend email invitations to additional participants.

Once a parent participant enrolled in the study, they provided contact information for their child’s kindergarten teacher so I could extend an invitation to them to join the study. I recruited teacher participants via email invitations in August 2020, and three of the four teachers immediately enrolled. Nadine’s teacher initially expressed interest in the study then declined participation due to her concerns with taking on additional responsibility during the COVID-19 pandemic-affected school year. The research team made the decision to keep Nadine enrolled in the study because we determined that we could observe her classroom experiences remotely and

her mother offered to share information that was being provided by teachers for the other participants.

Procedures

I used semi-structured interviews with parents and teachers as the primary data source; work samples, home visits during remote learning days and progress reports from school provided additional data. Each parent and teacher participant completed three in-depth semi-structured interviews lasting approximately one hour per encounter. The timing of the interviews coincided with the start of the school year and planned instructional format shifts. I recorded all interviews, and a professional service transcribed the interviews verbatim. See Figure 3.1 for an illustration of the timing of interviews alongside the start and end of the school year and district-wide instructional shifts.

Figure 3.1

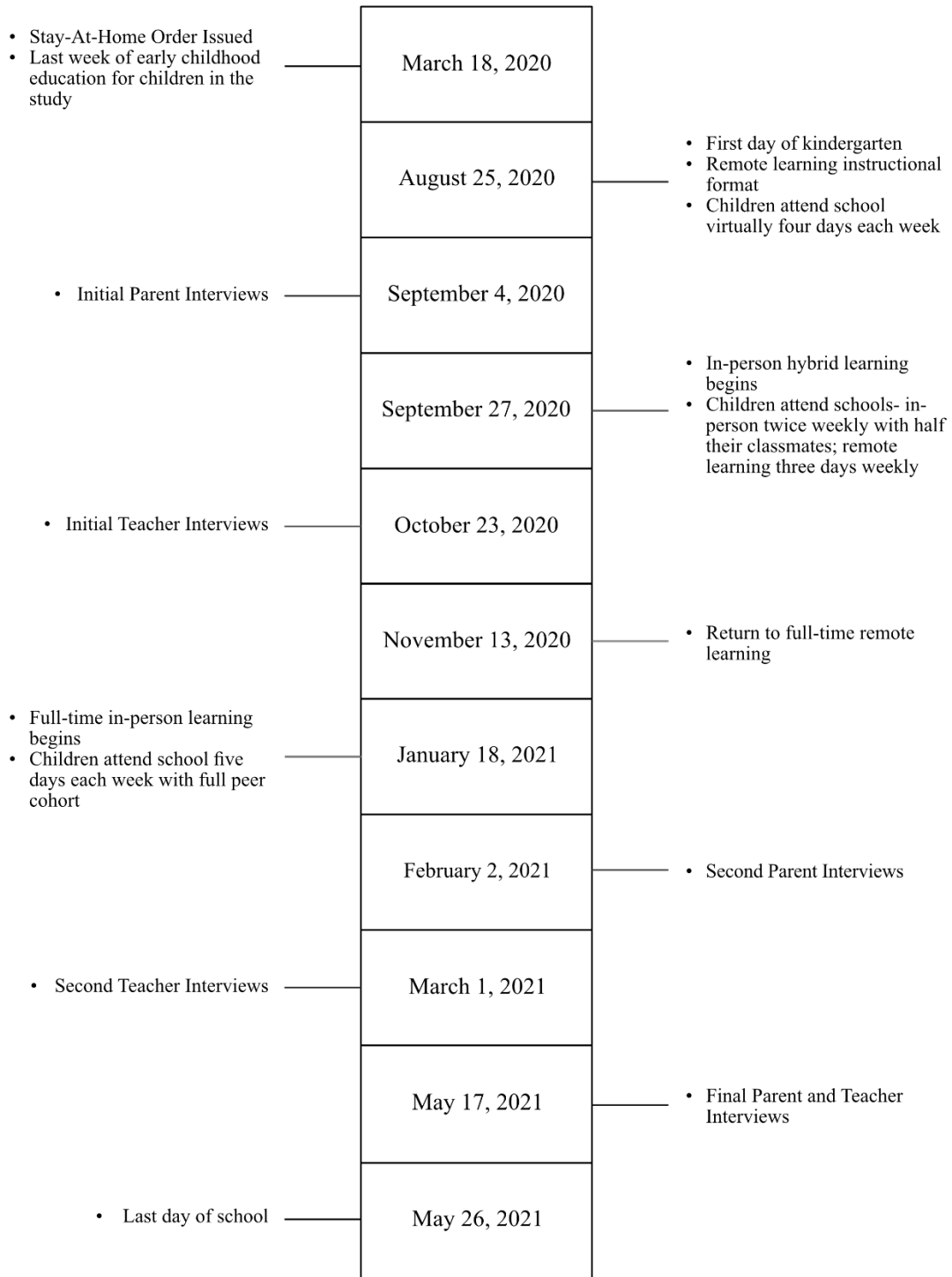


Figure 3.1: Timeline of Public Health Orders Related to COVID-19, District-Wide Instructional Format Shifts, and Participant Interview Schedule

I developed separate but parallel interview protocols for the parent and teacher groups prior to each interview. Some questions were written for both groups and other questions were written only for parents or only for teachers. I wanted to capitalize on each participant's unique vantage point, while also allowing for comparisons of perspectives within and across cases. For example, I asked both parents and teachers to describe what was going well for the child in kindergarten. I asked teachers to describe aspects of the kindergarten day that the child found exciting or challenging and parents to describe how their child's kindergarten experience was different than what they would have expected.

The content of the interviews was based on the key constructs I included in my research aims and questions and aligned with the timing of the interview as it related to the school year. For example, the initial interviews with the parents and teachers centered on the school readiness and kindergarten transition aspects of Research Aim 1 (Explore the participating kindergarten teachers and involved school personnel's perceptions of how the individual children participating in the study fared in their preparation for and transition into kindergarten), Research Question 2 (How do teachers and school personnel view the readiness and progress of the participating children as they transition into kindergarten and complete their kindergarten year?), and Research Question 3 (How did participating children manage their transition into kindergarten and how did they perform as kindergarteners throughout the school year?).

I recruited a parent of a child who had attended the same early childhood center as the study participants and a current kindergarten teacher to assist me in refining the interview protocols. Once an interview protocol was drafted, I reviewed the questions with at least two members of the research team. I revised the questions based on the research team's feedback, then implemented the protocol with either my parent or teacher consultant. We discussed the content

and flow of the protocol, and this feedback was incorporated into my final interview protocols used with the participants. See Appendices A-F for final interview protocols for each interview series.

I completed a home visit with each participant following their initial interview. Each home visit lasted about an hour and was scheduled during remote instruction. I collected work samples during the second interview series and asked either teachers or (in Nadine's case) the parents to walk me through the work sample. Teachers were asked to select a work sample they felt was highly representative of the child, and most selected a writing sample or recent project. For example, Leah's teacher showed me writing samples she took at the onset and midpoint of the school year to illustrate Leah's growth as a writer. I was allowed to photograph these work samples but could not take possession of them given that the interviews occurred via video conferencing. I asked parents to review progress notes/report cards from the midpoint and end of the school year. I was able to take notes on these items but did not retain possession given that they were shared via video conferencing.

In the case of Nadine, who had only a parent participant, I used the same parent interview protocol with her mother, Meg, as I did with the other parent participants. At times, I asked her to provide work samples or describe school experiences from Nadine's perspective, something asked of teachers for the other participants. For example, Meg described events that were challenging or motivating to Nadine at school and shared comments from Nadine's teacher on written report cards and from parent-teacher conferences. I then blended Nadine's data within the cross-case analysis as appropriate, acknowledging that I only had half the data to describe her kindergarten year as I did for other participants.

Pandemic Influence

Public health orders related to the COVID-19 pandemic affected the 2020-2021 kindergarten year and the data collection procedures used for this study. Over half of the kindergarten year occurred through remote learning and all in-person school days were affected by public health orders. Requirements of face masks, social distancing, and isolated classroom cohorts limited participation in specials, lunchroom, recess, and group learning experiences. Teacher participants described challenges translating learning activities to remote platforms, altering the scope and sequence of the curriculum, and emotional and behavioral challenges engaging students during in-person learning.

Public health orders altered data collection as visitors were not allowed in public schools and much of the school year was conducted via remote learning at home. I adapted to these restrictions by completing home visits during remote learning days, requesting work samples and test scores from participants, and using video conferencing for most interviews. Home visits occurred during October 2020 and were intended to give me more of a context for the children's remote-learning experience. I spent an hour of time observing the children during remote learning at a time deemed appropriate by the parents. All children had dedicated workspaces set up in their homes, including their own computer issued by the school and a desk and chair where they completed work. Two of the four children learned exclusively at home with their siblings while being supervised by a parent or grandparent. One child participated in a home learning pod with two peers and was supervised by a former preschool teacher. One child attended remote learning at home two days each week and attended a learning pod supervised by a home childcare center the remaining days.

These home visits also prompted me to reflect on the privileges afforded to the children participating in this study. Fosco et al. (2022) found that families who made positive adjustments to public health orders by maintaining a sense of harmony and offering respite opportunities shielded their children from maladaptive coping. The children included in this study had parents with the means and awareness to create dedicated learning spaces in their homes and who were present, either personally or by proxy, throughout remote learning to offer support and encouragement. The children's teachers were also highly thoughtful and responsive to the community's needs during the pandemic and provided all children with a laptop computer and adjustments to their instructional practices to optimize learning. Finally, the children benefitted from their access to recreation and outdoor leisure spaces given their physical location but also their parents commitment to offering a sense of "normalcy" and escape from the disquietude of the pandemic.

While I wrote reflective memos based on my home visits, I did not incorporate data directly from these visits into my analysis. Rather, I used my observations of home learning to better inform my interviews with teachers and to better understand the experiences of my parent participants.

Data Analysis

Congruent with Yin's (2018) case-based approach to cross-case analysis, I analyzed each parent and teacher interview upon its conclusion and merged the interviews by case to complete the initial within-case analysis. I then compared patterns across the four cases to construct the cross-case themes. The following sections detail my analytic procedures.

Within-Case Analysis

Individual case analysis involved four phases. In the initial phase, I read each interview transcript multiple times for familiarity and to document my reactions and biases. I then made a list of concepts or topics emphasized by the participant. In the second phase, these preliminary concepts provided an organizational structure for grouping the data into conceptual clusters. For example, I grouped individual case data describing the child's use of language to express their feelings and to build supportive relationships. In the third phase, I systemically worked through these groupings and developed initial codes with extrapolated, verbatim text illustrating the themes under consideration. In the fourth phase, I defined and described the themes from the individual cases and selected representative quotes from the transcripts for illustration.

Cross-Case Analysis

Cross-case analysis occurred once the individual case analyses were completed and involved three phases. In the first phase, I reduced the data set to focus on the most significant conceptual clusters. I identified three axial codes representing the breadth of the data cache: school readiness, adaptation to kindergarten and kindergarten performance. The axial codes linked the individual cases and served as the foundation for cross-case analysis. These codes also became the core subject of the three manuscripts produced from my dissertation in partial fulfillment of my graduation requirements.

In the second phase, I operationalized the axial code into a probing question which formed the basis of cross-case analysis. For example, I operationalized the axial code "school readiness" into the probe of "How are parents and teachers describing the readiness of these children to enter kindergarten?". I then reduced the data set to focus on descriptors of school readiness from within the individual cases.

In the third and final phase, I constructed the cross-case themes using inductive coding to extrapolate the major descriptors of the axial code (readiness, adaptability, or performance) common to all cases. See Figure 3.2 for a graphic illustrating this process using the *explorer* theme from the school readiness manuscript as an example.

Quality Assurance

I took many steps to safeguard the integrity of data analysis throughout the study. I remained engaged with participants for a full academic year which allowed for data triangulation and opportunities for member checking (Glesne, 2016). I asked participants to clarify or expand on previous statements to ensure accurate representation of their viewpoints as needed across the interviews. I practiced highly disciplined subjectivity through data trail audits, explicit links between interpretation and participant excerpts, and constant comparative analysis within and across cases (Glesne, 2016). I held recurring meetings over the course of the study to discuss the findings and arrive at consensus with other members of the research team for each step of analysis. A second coder assisted with defining and clarifying codes and engaged in on-going conversations to construct the final themes.

Constant comparative analysis enhanced the credibility of my work through continual reflection upon and refinement of my research strategy. Case study research allows for inquiry to occur cyclically rather than linearly, giving the researcher flexibility to monitor and adapt to contextual variation while remaining true to the study's foci on gaining a deep and thorough understanding of the case in context (Glesne, 2016; Jonasdottir et al., 2018; and Yin, 2018). Over the course of my study, my role in data collection and interpretation varied and this required me to remain alert and reflective for new directions and errant paths based on conditions in the field. Applying an iterative approach to this study allowed for a deeper understanding of the

phenomenon of kindergarten transition to emerge and evolve through my active engagement and reflection on the research process.

Effective application of interpretive and informative theory and a strong research design further augmented my efforts at completing a rigorous qualitative study. Cross-case methodology aligned well with my research aims and questions of understanding how parents and teachers described the experiences of children entering kindergarten after play-based early childhood education. Being immersed in literature related to play-based learning and school readiness provided me with the foundational knowledge I needed to define the core constructs of this research project. My familiarity with existing studies of parent and teacher perceptions of play-based learning allowed me to identify important gaps in the literature and situate my analysis within the current scholarship of the field.

Positionality

Introspective consideration of my own positionality further enhanced the credibility of my dissertation. Positionality refers to how I related to my participants and was influenced by my social indicators and existing relationships (Glesne, 2016). It was important for me to spend significant time reflecting on my positionality as I approached this work and to remain in dialogue with my own biases and preconceptions throughout the research process.

As a middle-aged European-American female, I matched the ethnic profile of my participating mothers and educators, and this perception of “sameness” likely disarmed my participants to some extent. I have also developed a plethora of effective rapport building strategies over my 20-year career as an occupational therapist, which gave me confidence in my ability to connect with parents and teachers. Finally, I am both a teacher and a mother. I could

empathize with my participants in an authentic way, which I believe promoted their comfort in sharing their insights with me.

However, the comfort that came with commonality also meant that I had to remain vigilant that the very context that was allowing me ease of connection could also destroy the credibility of my work. I had to grapple with my pre-existing relationships with my participants, and recognize that like my participants, I was also navigating my role as a mother and teacher during the pandemic. I had my own personal convictions and challenges related to the pandemic, and it was critical that I compartmentalize and process my experiences lest they shade my perceptions of others' experiences.

For example, I was very aware that I was recruiting children from an early childhood center where I had worked as an Occupational Therapy Fieldwork Educator since 2015. Based on the inclusion criteria for this study, I had known these children and their families for at least three years as their school occupational therapist. This gave me the potential of being seen as an “expert” by families who may have interacted with me in this role during their child’s time at the ECC. I was also in the position of knowing the children in my study very well, which made me highly reflective in thinking through my own conclusions about who these children were based on my experiences with them. Therefore, I was explicit in describing my role as a researcher with the families and children participating in my study, emphasizing my desire to learn from their experiences to inform my research questions. I was also mindful to be attentive to participant perspectives and to separate my own preconceptions from what I was hearing. I wrote reflective memos following each interview that included my emotional and intellectual reactions to what participants were saying. As my transcripts were created and I began my analysis, I

reviewed my reflections prior to my initial coding so that I remained in dialogue with my perceptual filters and potential biases.

I was also very mindful that, like my participants, I was trying to navigate the school year as a mother of three children and as a college professor trying to teach through public health orders. The fact that my children were much older than the children who were the focus of my study meant that I was often encountering challenges not faced by my participants, which put me in the position of a learner as they described how public health orders affected their younger students. For example, my daughter was a junior in high school at the onset of the pandemic. I watched her and her friends mourn the loss of lifelong dreams, such as admission to elite universities and college athletic scholarships due to cancelled Scholastic Achievement Tests, Advanced Placement exams, and high school spring sports seasons. None of the families participating in this study were encountering these losses, rather they described their sadness related to being excluded from their child's kindergarten class and grappling with their family's isolation from extended family members such as grandparents.

I had a similar experience when I interviewed the kindergarten teachers. While some of their challenges were familiar to me, such as the frustration of online learning platforms, most were distant which aided me in separating my experiences from theirs. I found that my strongest defense against the intrusion of my personal biases as a mother and teacher was to engage in intentional self-care and stress management techniques. I maintained a running and yoga practice throughout my research journey as my primary coping mechanism and meditated prior to each interview to ensure that my mind was clear. When asked about my experiences as a mother and teacher by participants, I reflected on their comment and redirected the conversation. For example, when a mother participant expressed her frustration with the pandemic and asked how I

was coping with remote learning, I responded by agreeing with her premise that remote learning was frustrating and offering the date when my children were scheduled to resume in-person learning. This allowed me to empathize and maintain rapport, without adding new emotions or personal judgment to the conversation.

Closing Reflections

All researchers should develop reflective practices, in that they examine their rationale and judgment related to all research decisions. For me, it was important to not just examine research decisions, but also myself as the person making those research decisions. Who I am as a person and professional is woven throughout this dissertation, as my research design, implementation and analysis were rooted in my own lived experiences, curiosities, and motivations. The trick of it all was to capitalize on the assets I brought to the project without letting the liabilities get in my way. I am grateful that I came to this project as an expert pediatric occupational therapist. This gifted me with an astute love of children and families, years of practice in educational settings and a way of thinking that prepared me to tackle the ambiguity and emergent design of a longitudinal qualitative study.

On the other hand, my OT training predisposed me to the idea that play is the primary occupation of children and the headwaters of their development and learning. These beliefs were only reinforced by my lived experiences as a therapist, mother, and collaborator at the Early Childhood Center. I came to this project knowing what I had seen in terms of the play and learning relationship, but what I did not understand was the how and why. This made a qualitative project using cross case methodology the perfect dissertation choice for me. The goal was never to “prove” that play-based education was somehow superior to other forms of early childhood education, rather it was to describe how children emerged as learners following play-

based education. For me, I knew what I saw but I also knew that I had to conduct a high-caliber, rigorous study so others might come to accept or learn from my work.

I believe reflection is the great mediator of qualitative research. It allowed me to gain insights into my data and helped me to separate my own aspirations from the voices of my participants. Entering the world of qualitative research at times felt like I was walking in a world of secrets, as participants revealed to me their private thoughts and vulnerabilities. Secrets are a messy and delicate thing to handle and deserve the utmost integrity and respect from their keeper. The weight of that responsibility weighed heavily on my shoulders throughout this project, as I handled each transcript, artifact and observation with the integrity and sanctity it deserved.

I believe highly disciplined subjectivity is the best mitigation when it comes to managing positionality and bias monitoring. I was diligent in composing reflective memos and mindful to meditate prior to participant interviews so that my mind was clear when I began my conversations. I am fortunate to be insatiably curious about the human condition and genuinely intrigued by the stories of others, which further opens my mind to perspectives that are unexpected and unfamiliar. These traits allowed me to develop my research trade craft as I sought to understand the multifaceted stories of these children during a tumultuous and vibrant time.

Figure 3.2

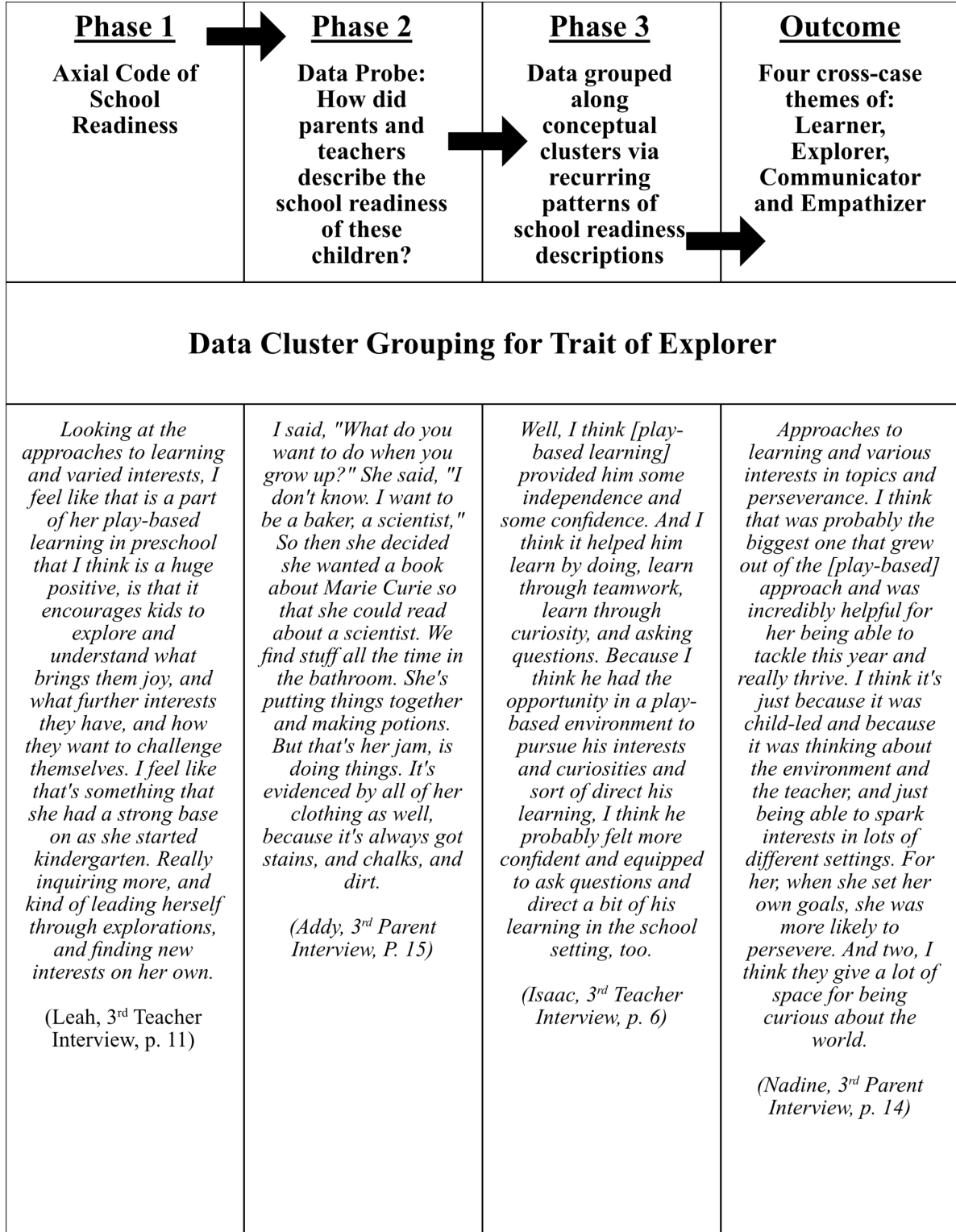


Figure 4.2: Explorer Theme Construction: Within-Case Analysis to Cross-Case Analysis

CHAPTER FOUR: JOURNAL ARTICLE ONE

Entering Kindergarten After Years of Play: A Cross-Case Analysis of School Readiness Following Play-Based Education ¹

Introduction

School readiness is a culmination of a lifetime of experiences that prepare children to enter a group learning context where they must modify their actions in response to feedback, establish relationships with peers and adults, and apply new knowledge within a variety of learning contexts. Thus, children benefit from formal education when they have developed processes that support learning, such as establishing social relationships, self-management, and positive approaches to learning (Eggum-Wilkins et al., 2014; Ginsberg, 2007; Pistorova & Slutsky, 2018).

The National Association for the Education of Young Children (NAEYC, 2017) promotes the use of play as an educational pedagogy during early childhood to facilitate the social adaptation, inquisitiveness, and self-regulation necessary for comprehending academic content and general knowledge. NAEYC (2017) described play in early childhood education as “a valuable pedagogical tool in that it features the precise contexts that facilitate learning... mental activation, engagement, social interaction, and meaningful connections” (p. 3). Play has been considered the foundation of children’s learning dating back to the days of Plato (427-347 BC) and Aristotle (387-322 BC), both of whom wrote about the virtues of play as necessary to

¹ Fyffe, L., Sample, P. L., Lewis, A., Rattenborg, K., & Bundy, A. C. (2022). Entering Kindergarten After Years of Play: A Cross-Case Analysis of School Readiness Following Play-Based Education. *Early Childhood Education Journal*, 1–13.
<https://doi.org/10.1007/s10643-022-01428-w>¹

develop children into competent adults. Vygotsky (1978) described that exploring culturally instilled roles through play developed attention, memory, abstract thought, and self-monitoring. Elkonin (1978) extended this discussion by saying that play fostered children's mental representation, motivation and intentionality, awareness of multiple perspectives, behavior modification in accordance with social norms, and promotes internal morality as children create, follow, adapt, and enforce rules.

More recently, the American Academy of Pediatrics (Ginsburg, 2007) described play as “essential to the cognitive, physical, social and emotional well-being of children and youth” and called for “the inclusion of play as we . . . prepare our children to be academically, socially, and emotionally equipped to lead us into the future” (p. 183). Zosh et al. (2017) concurred, stating that “content only serves children as far as they can apply and build on it... children also need a deep conceptual understanding to connect concepts and skills, apply knowledge and spark new ideas” (p. 5). Given that play fosters social reciprocity, self-management and creative thought processes deemed necessary for school readiness, time spent playing provides essential preparation for learning receptivity and responsiveness.

Consistent with these views, early childhood education programs have been historically grounded in child-directed play experiences with a primary focus on developing social relationships, approaches to learning, and self-regulation (Burchinal et al., 2008). Play as the focus of early childhood education remained essentially unchallenged in the United States until 1983, when the National Commission on Excellence in Education issued a report entitled *A Nation at Risk: The Imperative for Education Reform*. This Presidential-commissioned report described education in the United States as “a rising tide of mediocrity” citing American children's poor academic performance, rampant illiteracy among adults and teens and declining

scores on standardized achievement tests measuring academic competency. The authors recommended sweeping educational reforms with higher expectations of student performance and rising academic achievement test scores as the cornerstone of a stronger American education system (National Commission on Excellence in Education, 1983). Congress responded by enacting educational reforms, beginning with *America First* (1991), a comprehensive education reform act aimed at improving school readiness.

America First defined school readiness along five domains: physical health and wellbeing, social-emotional development, language development, general knowledge and cognition, and approaches to learning. Most states evaluated school readiness by measuring general knowledge and cognition, placing less focus on the other four domains. Subsequent educational reform legislation, No Child Left Behind (NCLB; 2002) and Race to the Top-Early Learning Challenge (RTTT-ELC; 2013), further cemented administration of standardized assessments prior to kindergarten entry. This represented a substantial shift from formative assessments of early childhood education, where teachers evaluated children over time (Hustedt et al., 2018).

As early childhood educators navigated increasing pressures for proficiency in early literacy and numeracy, the content of many early childhood education programs emphasized academic content (Fleer, 2021; Nicolopoulou, 2010; Taylor & Boyer, 2020). However, academic instruction in preschool is controversial; some early childhood educators have expressed concern about the developmental appropriateness of direct instruction practices (NAEYC, 2017; Zosh et al., 2017). This philosophical split left some early childhood programs grounded in play-based, child-directed experiential learning while others emphasized direct academic instruction. Durkin et al. (2022) stated that direct instruction in early childhood education produces short-term gains in constrained literacy skills (e.g., recognizing the alphabet), but not the unconstrained literacy

and numeracy skills associated with long-term academic success (e.g., comprehension, problem-solving). This suggests that content-heavy preschool curricula most aligned with school readiness assessments may fail to capture the foundational aptitudes children need for academic achievement.

School readiness is a complicated and nuanced concept; children need more than general knowledge and academic skills to thrive at school. Hustedt et al. (2018) found that kindergarten teachers favored non-academic skills as most valuable: caring for personal needs, exhibiting self-control, communicating needs and preferences, modifying behavior and interacting cooperatively. Pistorova and Slutsky (2018) further argued that the twenty-first century learner must be fluent with “critical thinking, communication, collaboration and creativity” (p. 495); these are learned through capitalizing on children’s natural curiosity and inquisitiveness. Zosh et al. (2018) stated that optimal learning occurs within a playful context where children experience joyfulness through engagement in meaningful activities. Play-based learning allows children to develop and test theories and make new discoveries, thus expanding their capacity for problem-solving and construction of higher-order conceptual schemas (Fleer, 2011; Sim & Xu, 2017). Finally, peer play and social relationships have been associated with higher levels of global teacher-rated kindergarten competence including following directions, academic receptivity, self-regulation, and cooperative interactions (Eggum-Wilkins et al, 2014).

Johansson and Samuelsson (2006) argued that play and learning in young children are integrated, and researchers must seek to understand the relationship between play and learning rather than dichotomize them with false distinctions. Nilsson et al. (2018) advocated for a *play-as-learning* approach to early childhood education, where learning “is not just understood in the narrow cognitive sense...but more broadly as transformations driven by different kinds of

experiences that lead to sustained change” (p. 232). This suggests a need for research aimed at explicating the ways in which play contributes to readiness for formal education. Therefore, the purpose of this paper is to describe how teachers and parents interpreted the school readiness of four children as they navigated kindergarten after three or more years of play-based early childhood education at a Reggio Emilia-inspired school.

Methods

This manuscript is part of a larger, longitudinal study exploring how children fared as kindergarteners following play-based early childhood education, in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Occupation and Rehabilitation Science at Colorado State University for first author LF. Data were collected from September 2020 through May 2021. This study was approved through the Colorado State University Institutional Review Board (approval 19-9519H).

Research Design

We used Yin’s (2018) cross-case study approach to synthesize findings from the cases. We collected data at the onset, midpoint, and conclusion of the kindergarten year. Each data cache informed subsequent data collection.

Participants

We recruited participants from a Reggio Emilia-inspired play-based early childhood center in Northern Colorado. Reggio Emilia is a highly regarded approach to early childhood education where children collaborate with their teachers to explore their interests through projects which are thoughtfully designed and documented (McNally & Slutsky, 2017). We enrolled four participant clusters in the summer preceding the child’s kindergarten enrollment; each cluster ideally included a parent and a kindergarten teacher associated with an individual child. Mothers

were the parent informant for all four clusters and provided contact information for their child's kindergarten teacher. Three of four kindergarten teachers participated; one declined due to concerns with the COVID-19 pandemic-affected school year.

Kindergarten teachers represented three different curricular foci: Core Knowledge, International Baccalaureate and Science, Technology, Engineering and Math (STEM). The research team deemed dissimilar kindergarten foci desirable to offer variation in kindergarten experience, but this was not a participant requirement. Table 4.1 contains a description of cluster members organized by child.

Pandemic Influence

Public health orders related to the COVID-19 pandemic affected the kindergarten year. Over half of the kindergarten year occurred through remote learning and all in-person school days were affected by public health orders. Requirements of face masks, social distancing, and isolated classroom cohorts limited participation in specials, lunchroom, recess, and group learning experiences. Teacher participants described challenges translating learning activities to remote platforms, altering the scope and sequence of the curriculum, and emotional and behavioral challenges engaging students during in-person learning.

Public health orders also altered data collection as visitors were not allowed in public schools. We adapted to these restrictions by completing home visits during remote learning days, requesting work samples and test scores from participants, and using video conferencing for most interviews.

Procedures

We used semi-structured interviews with participants as the primary data source. Each participant completed three in-depth semi-structured interviews lasting approximately one hour

per encounter. The interviews coincided with the start of the school year and planned instructional format shifts. We recorded all interviews; a professional service transcribed them verbatim. See Figure 4.1 for an illustration of the timing of interviews alongside of the start and end of the school year and district-wide instructional shifts.

We developed separate but parallel interview protocols for the participant groups prior to each interview. Some questions were written for both groups; others were written only for parents or teachers. We wanted to capitalize on each participant's unique vantage point, while allowing for comparisons of perspectives within and across cases. For example, we asked both parents and teachers about the child's school readiness based on Colorado's early learning standards. We asked teachers to describe how the child fit within their classroom expectations and parents to describe how their child had grown over the course of the school year. See Table 4.2 for interview protocol examples.

In the case of the child whose teacher did not participate (Nadine), we used the same parent interview protocol with her mother as we did with the other parent participants. Nadine's mother provided work samples and school-generated reports. We blended Nadine's data within the cross-case analysis as appropriate, acknowledging that we had half the data for her as other participants.

Data Analysis

Congruent with Yin's (2018) case-based approach, we analyzed each participant interview upon its conclusion and merged the interviews by case to complete the initial within-case analysis. Once we identified themes from an individual case, we looked for replication across cases, remaining sensitive to congruences and differences as we identified patterns. By comparing patterns across cases, we constructed common themes.

Within-Case Analysis

In the initial phase of analysis, first author LF read each transcript multiple times for familiarity, documented any reactions and biases, and listed all topics emphasized by the participants for each case. In the second phase, these preliminary topics provided an organizational structure for grouping the data into conceptual clusters. In the third phase, authors LF, PS and AB systematically worked through groupings and developed initial codes with extrapolated, verbatim text illustrating the themes under consideration. In the fourth phase, author LF defined and described the themes from the individual cases and selected representative quotes for illustration.

Cross-Case Analysis

Cross-case analysis occurred after individual case analyses. First, author LF reduced the data set to focus on the most significant conceptual clusters; these became axial codes linking the data across cases. For this manuscript, school readiness was the axial code of interest (kindergarten performance and adaptation were the other axial codes and will be the foci of subsequent papers). In the second phase, author LF operationalized school readiness into a probing question (*How are parents and teachers describing the school readiness of these children?*), which guided the cross-case analysis. Finally, authors LF, PS and AB constructed cross-case themes using inductive coding to extrapolate the major descriptors of school readiness common to all cases. First author LF served as the primary coder, PS was the second coder and both PS and AB engaged in ongoing conversations with LF to define, clarify, and construct the final themes. These themes were then presented to the entire research team for discussion until consensus was reached. See Figure 4.2 for a graphic illustrating this process.

Quality Assurance

We took many steps to safeguard the quality of the study data, as well as the data analysis. We remained engaged with participants for a full academic year which allowed for data triangulation and opportunities for member checking. We practiced highly disciplined subjectivity through data trail audits, explicit links between interpretation and participant excerpts, and constant comparative analysis within and across cases (Yin, 2018). We held recurring meetings to discuss the findings and arrive at consensus with all members of the research team.

Positionality

Author LF supervised occupational therapy students completing internships at the play-based early childhood center where the children were enrolled prior to entering kindergarten. Author PS has expertise in qualitative research methodology but had not worked with early childhood research prior to this study. Author AL is an early childhood education teacher educator and coached teacher candidates at the research site. Author KR was the Executive Director of the center during the time when this study occurred. Author AB is an expert in play and has many years of school-based experience as an occupational therapist and researcher.

Findings

Participants believed the children were well prepared for kindergarten. Four themes were identified through the data analysis process that illustrate their school readiness: *learners*, *explorers*, *communicators*, and *empathizers*. See Table 4.3 for full definitions of each theme.

Theme 1: Learners

We defined *learner* as a child who is highly receptive to acquiring new knowledge. Data within this theme described children's responses to classroom instruction and teacher feedback.

Teachers reported that the children arrived at kindergarten ready to learn and were quick to integrate new knowledge and concepts. They noted well-developed language, eagerness for learning, and willingness to embrace feedback and challenge. Isaac’s teacher described him by stating.

What I could tell is that he was ready to learn. He was really engaged with letters and numbers, and he was eager. It was the perfect time to start teaching him how to read and write... (Isaac, 3rd Teacher Interview, p. 13)

Addy’s teacher described her by saying.

She knew about half of her letter names and sounds, and that's actually a little ahead of the game for a lot of kiddos coming into kindergarten. She has a good sense of what word would make sense when she gets to a word she doesn't know...it's like it's innate with her. So that tells me that she had a very good background in those phonemic awareness skills... (Addy, 3rd Teacher Interview, p. 4)

Teachers described the children as self-directed, which heightened their readiness to retain new information and engage in academics. Leah’s teacher described her, saying, “I feel like [self-direction] is something that she had a strong base on as she started kindergarten. Really inquiring more, and kind of leading herself through explorations, and finding new interests on her own.” (Leah, 3rd Teacher Interview, p. 11). Nadine’s mother described her inquisitiveness by saying “Being able to spark interests in lots of settings was incredibly helpful for her to tackle this year and really thrive” (Nadine. 3rd Parent Interview, p. 14).

Teachers also expressed how the ability to persist through challenge and apply feedback benefitted the children. Leah’s teacher described her by saying:

She understands challenge, and she understands the benefit from challenge. She doesn't shy away, because she sees how challenge benefits her as a learner and a problem solver. She understands what her job is as a student and wants to do her very best with that. (Leah, 3rd Teacher Interview, p. 12)

Isaac's teacher described him as a responsive learner who takes feedback and applies teachings in a variety of contexts. "He's a quick learner. He will apply what I've asked him to change and take it in a direction I'd like him to go." (Isaac, 3rd Teacher Interview, p. 7)

Theme 2: Explorers

While the *learner* theme centered on how a child reacted to their classroom experiences, the *explorer* theme centers on how a child approached learning and applied new knowledge. We defined *explorer* as a child who is inquisitive, creative and takes initiative in seeking and expanding upon their learning experiences. Parents and teachers saw inquisitiveness as a strength of all the children. They shared stories of the children's creativity and open-mindedness. Nadine's mother described how she used exploration to follow an interest in the Fibonacci rule of spirals. She drew pictures of the pinecones she found in their backyard, carefully documenting their shape and composition.

I think [varied interests] was probably the biggest one that grew out of [play-based learning] and was incredibly helpful for her being able to tackle this year and really thrive. I think it's just because it was child-led and because it was thinking about the environment and the teacher, and just being able to spark interests in lots of different settings. You just figure out your own goals and you're trying to set them yourself. For her, when she set her own goals, she was probably more likely to persevere. And two, I

think they give a lot of space for being curious about the world. (Nadine, 3rd Parent Interview, p. 27)

Addy's mother told a story of how Addy was inspired by a book about Marie Curie and subsequently spent time mixing potions in the bathtub. She felt that play-based learning instilled a curiosity and desire to learn through exploration and discovery in Addy.

So, like I said, "What do you want to do when you grow up?" She said, "I don't know. I want to be a baker, a scientist." So, then she decided, when they were out at the store, she wanted a book about Marie Curie so that she could read about a scientist. And we find stuff all the time in the bathroom. She's putting things together and making potions. But that's her jam, is doing things. But it's evidenced by all of her clothing as well, because it's always got stains, and chalks, and dirt. So, she's in there. (Addy, 3rd Parent Interview, p. 15)

Isaac's mother spoke of the connection she observed between exploration, inquisitiveness, and confidence and how this impacted Isaac's engagement with learning in kindergarten.

Well, I think [play-based learning] provided him some independence and some confidence. And I think it helped him learn by doing, learn through teamwork, learn through curiosity, and asking questions. Because I think he had the opportunity in a play-based environment to pursue his interests and curiosities and sort of direct his learning, I think he probably felt more confident and equipped to ask questions and direct a bit of his learning in the school setting, too. (Isaac, 3rd Parent Interview, p. 6)

Leah's mother described how play-based learning contributed to Leah's open-mindedness about the world and her willingness to take initiative with learning.

Because of her play-based background, I really think that she's been in a place where she's been able to be that much more open-minded. I think the focus on explorative play has been crucial for learning different ways of perceiving and understanding the world around her and fostering her as an innate learner and leader of her own development. And I think it would have been much more difficult to have had that type of growth in a different type of setting. (Leah, 3rd Parent Interview, p. 9)

Participants also attributed the children's varied approaches to learning to play-based experiences. Nadine's mother described how Nadine continued to draw on the creativity fostered through play-based learning in approaching her academics.

She wasn't coming in just wanting to follow instructions exactly, which I think is a great way to approach learning. Because I know sometimes if you just think about following the steps of something to get the A or something like that, to me it kind of undermines the joy of learning. So, I think for her, she kept that creative approach. (Nadine, 3rd parent Interview, p. 19)

Theme 3: Communicators

We defined *communicator* as a child who demonstrates self-advocacy, conflict management or relationship-building skills. Data within this category shows how the children expressed themselves and established social connections. Parents and teachers described the children as in-tune with their peer cohorts, well-versed in considering other perspectives and able to describe and advocate for their needs. Teachers noted that social communication was a struggle for many children entering kindergarten during the 2020-2021 school year, but felt these children were effective at establishing social connections and cultivating relationships with peers and adults.

Addy's teacher spoke about her "Friday Fun" group where kindergarteners were allowed to free play with vintage toys and art supplies for an hour in the classroom.

This year, she had to remain constantly present during this time because the children were unable to share toys and develop a play schema together. Addy, however, was always able to find something to do and negotiate with others for turn taking and sharing of materials.

I feel like for a kindergartner she came in knowing a lot of the social cues and how to move around a classroom, how to manage listening to directions, but also if something isn't quite going her way, she'll either go do something else or say how she feels. I have never heard her, necessarily, argue with someone about something. She seems to handle conflict pretty well, which, I didn't really teach her that. (Addy, 3rd Teacher Interview, p. 16)

Leah's mother described how Leah used her negotiation skills to intervene during a potentially challenging situation when Leah and her friends all wanted to play dress-up with the same butterfly cape.

I think that where [play-based learning] was really helpful for her was in learning to speak up for difficult situations. To me, watching her negotiate with those friends how much time each child is going to have with this really great outfit... I think that that has been evident to me that she really does have a way of kind of owning her feelings and stepping up and saying something. It's just hard to know of course, but I think the skills that she has now, in terms of her confidence, really grew out of negotiating with others in a play-based environment. (Leah, 3rd Parent Interview, p. 10)

Isaac's mother described how Isaac's ability to communicate was helpful in navigating the emotions of his kindergarten year.

He used to talk about when he was struggling. He will say, "I'm feeling sad right now, I am feeling upset right now." He'll just say it. Sometimes we know it's coming, and sometimes we didn't. I think that was a real advantage for this year in particular. (Isaac, 3rd Parent Interview, p. 20)

Leah's teacher described a scenario where Leah sought out a weekly meeting with the Assistant Principal to discuss life events, which she chose over her recess time.

I have come to understand how important personal connection is for [Leah]. And so, she is amazing with interactions and relationships with kids, but she's clearly somebody who seeks that connection with other adults. And I talked about her in class just being such a great listener with friends and classmates. But it's all around. She just has genuine interest in learning from other people's stories. (Leah, 3rd Teacher Interview, p. 10)

Theme 4: Empathizers

We defined *empathizer* as a child who expresses compassion towards others, and data within this theme represent how children engaged thoughtfully with their classmates. Teachers especially described scenarios where these children exceeded their expectations for social reciprocity and initiating acts of kindness. Addy's teacher described Addy by saying, "all the kids at this point have been taught how to be kind but to see a child actually notice a friend who is alone and do something about it is quite remarkable."

Leah's teacher also noted Leah's exceptionally well-developed empathy and felt this was a result of immersion in play-based learning.

Social emotional development, I feel like she's at the top of her class with that. She's just very thoughtful in how she interacts with others. Really high skills with empathizing with others. And I feel like that's something that you don't often see in kindergartners. It takes a lot of development, but I feel like that's something that [Leah] had walking into kindergarten. (Leah, 3rd Teacher Interview, p. 5)

Isaac's teacher spoke of Isaac's awareness of others' emotions, especially classmates with disabilities. She stated that Isaac persists in these relationships because he wants to help these children succeed.

He sees these good strengths in the other kids. And even when it's bothering him, he wants to be there to work through the issues, kind of like just an old soul in a sense that he kind of has this awareness and then the verbal skills to help this child through the process. (Isaac, 3rd Teacher Interview, p. 18)

Nadine's mother spoke of how Nadine reacted to children who were emotionally distraught by extending compassion in emotionally charged situations.

And I feel like there are times when our kids have been upset, for sure, but we've heard what seems like trauma. Kids throwing chairs in the classroom and stuff that I don't remember ever happening when I was in school. And our kids talk about it and say, someone had kind of a rough day or like lost control of his emotions, which I feel like was an incredible way to put it. (Nadine, 3rd Parent Interview, p. 24)

Discussion

The purpose of this qualitative cross-case study was to describe the school readiness of four 5-year-old children entering kindergarten following play-based learning at a Reggio Emilia-inspired early childhood center. Participants described the children as learners, explorers,

communicators, and empathizers, and believed the children were ready for kindergarten, engaged in creative thought, were responsive to novel learning experiences and classroom expectations, were well-versed in social communication and oriented towards connecting with others.

Literature addressing play and learning suggests children entering kindergarten following play-based early childhood education should excel in three key areas of school readiness. First, they should be excellent thinkers and learners who are curious about the world around them, capable of driving their learning and exploring their interests. Second, they should be fluent in emotional intelligence and adept at modifying their actions in accordance with group norms and social feedback. Finally, they should be confident in relationship building, readily forging connections with peers and adults and executing social reciprocity with ease (Harrington et al., 2020; Immordino-Yang et al., 2019; Taylor & Boyer, 2020).

Zosh et al. (2018) stated that children need to be ready to develop deeper conceptual understandings of the knowledge they acquire in school to be proficient learners and contributors to their classroom. Play provides recurring and novel opportunities for children to think deeply about the concepts they are learning, thus fostering complexity of thought and the development of complex schemas. Our findings offer evidence that play-based learning was effective in nurturing the thinking and understanding of the children who were the focus of this study. From Nadine's careful recording of the pinecone shapes she observed in her backyard as she pondered the Fibonacci rule of spirals to Addy's potion-making in the family bathtub, the children we studied took the information they learned and used it to investigate hypotheses and record their observations of nature. These children embodied the process of learning through self-directed exploration, which allowed them to make new discoveries and use the knowledge they acquired to serve a purpose.

Nilsson et al. (2018) championed play-as-learning because of the transformational changes play fosters within children as they enact societal roles and norms. Through play, children explore that which they have learned and discern how to apply or revise their knowledge in collaboration with others. Because play challenges children to leverage existing knowledge to solve social dilemmas, they become increasingly fluent in the process of reading social feedback and advocating for their position. Leah embodied this when she led negotiations among friends to determine acceptable rules for sharing a prized cape during dress-up play. Isaac's teacher illustrated this through her observations of Isaac using his social capital to include classmates with disabilities within the social hierarchy. Addy's teacher observed this when she described Addy's competency with reading social cues and following directions. In all cases, these children showed an ability to alter their behavior in response to social expectations.

Learning is inherently social, and children who are emotionally responsive have an easier time forming social connections (Harrington et al., 2020; Immordino-Yang et al., 2019). Establishing positive social relationships advantaged these children by allowing them to tap into the knowledge of others and learn collaboratively through group exploration. Addy's teacher illustrated this when she reflected on Addy approaching a child sitting alone on the playground and inviting her to play. She noted that seeing Addy notice and extend an invitation to the solitary child was beyond the social maturity she expected of kindergarteners. Leah's pursuit of a weekly meeting with her Assistant Principal also showed her prowess in building and sustaining relationships with others. Mrs. T's description of Leah's desire to "learn from the stories of others" shows the extent to which these children valued social connections and used their relationships with others to obtain new understandings.

These children's proficiency in building relationships and social connections likely contributed to their success in kindergarten in many ways. One of our findings that was not explicit in play-based learning literature was the extent to which these children embraced challenges and persisted through difficulty. Burchinal et al. (2008) described the student-teacher relationship as the most impactful element of early learning in young children. The warm and trusting relationships these children fostered with their teachers likely contributed to their willingness to push themselves academically and accept constructive feedback to make progress as kindergarteners.

Through immersion in child-directed, exploratory learning, these children arrived at kindergarten with well-established schemas for acquiring and using new knowledge. They came from a background where they were encouraged to follow their interests and have voice in both the content and format of their educational experiences. Part of being the driver of your own learning is that you become adept at solving problems. This likely advantaged the children in that they saw themselves as co-creators of knowledge, capable of making meaningful contributions to their learning experiences. This was reflected when Leah's teacher said that Leah showed "many ways of learning" and in Meg's comment that Nadine "kept that creative approach" when she was exposed to direct instruction in academic concepts and teacher-provided learning materials.

Our findings align with holistic views of education, given that the parents and teachers described these children as fluent with the non-constrained aspects of school readiness (Durkin et al, 2022; Taylor & Boyer, 2020). Their ability, however, to use social language and draw connections among concepts allowed them to master the more constrained elements of learning with persistence and enthusiasm. For example, Isaac was described as having the language skills to work through interpersonal problems with his peers and share his emotions with both his

teacher and his mother, which helped him navigate social conflict and process his feelings of sadness or frustration. Because he was able to process emotional experiences in a supportive and productive manner, he was likely more available and present for classroom instruction.

The socioemotional school readiness attributes favored by teachers as preparing children for school are difficult to quantify, though parents and teachers readily observed them in the children studied. Time spent in play-based learning, where these children were empowered to follow their interests and actively collaborate with teachers and peers to co-create and lead their learning experiences, seemingly instilled within them a deep understanding of the learning process. These children arrived at kindergarten having established robust approaches to learning, which may have contributed to their competency with acquiring new knowledge and responding to various learning environments and teaching strategies. The children saw learning as an opportunity to pursue their interests, and as Nadine's mother observed, when children set their own goals, they are much more likely to persevere through challenge.

The children who were the focus of this study faced many challenges beyond what would be expected during a typical school year and had access to fewer of the supports normally offered to buffer them against those stressors. The study of kindergarten transition during a time of high stress and uncertainty was likely, and perhaps surprisingly, an asset to our research, as the intensity of experiences faced by these children illuminated their readiness in unique and varied ways. For example, having to navigate changes in instructional format revealed participants' prowess with cognitive flexibility and persistence, while learning from home showcased their ability to drive their interests and explore topics.

Conclusions

Early childhood educators and education policy makers face two fundamental questions when evaluating the readiness of children to enter kindergarten and benefit from formal education: 1) what foundational aptitudes best prepare children for long-term educational success? and 2) what pedagogical practices provide the optimal learning context for children prior to entering kindergarten? Children have many different life experiences that contribute to their readiness for kindergarten and perhaps it is more important to think about *how* various experiences prepare children for kindergarten rather than *what* experiences prepares children for kindergarten.

The children who were the focus of this study were very well prepared for successful kindergarten experiences by their time in play-based education. School readiness is a mindset that allows children to acclimate to and benefit from group learning contexts, requiring a certain adaptability and responsiveness to novelty and change to be successful. Perhaps play's secret is its novelty and variation in challenging children to apply the knowledge they have and develop new understandings as situations become increasingly complicated; thus, preparing them for the challenge of kindergarten.

Limitations

The nature of qualitative research is to explore participant experiences within their natural context through an in-depth, rich account of a relatively small number of participants (Yin, 2018). Congruent with cross-case study and qualitative research paradigms, the descriptions of these children's preparedness for school were derived from the collective perspectives of their mothers and kindergarten teachers and were not compared with other measures of school readiness such as school-administered assessments (which were cancelled because of the

pandemic). The children who were the focus of this study were well-prepared for kindergarten following play-based learning and the participants' descriptions helped to deepen readers' understanding of the role of play in that preparation. Nonetheless, there are many influences on children's early development, and we cannot definitively say how these children's experiences would compare with children entering kindergarten from a non-play-based setting.

Table 4.1*Descriptors and Characteristics of Participant Clusters (code names used)*

Descriptors and Characteristics	Child Pseudonym			
	Addy	Isaac	Leah	Nadine
Gender	Female	Male	Female	Female
Age at initial interview	5 years, 7 months	6 years, 1 month	5 years, 6 months	5 years, 6 months
Birth order	2 nd of two siblings	1 st of two siblings	2 nd of two siblings	2 nd of two siblings
Teacher participants' time teaching	28 years	14 years	11 years	unknown
Curricular focus of school	Core Knowledge	Science, Technology, Engineering and Math	International Baccalaureate	International Baccalaureate

Table 4.2

Sampling of Interview Protocol Questions by Participant Group

Interview Foci	Sample Question
School readiness along Colorado Early Learning Standards (2016)	<p><i>The State of Colorado (2016) describes six early learning development areas that promote readiness for kindergarten. How would you describe the readiness of [child] along these lines when s/he began kindergarten last fall? *</i></p> <ul style="list-style-type: none">• <i>academic knowledge such as letter and number recognition,</i>• <i>overall health and development such as physical well-being and motor development,</i>• <i>social emotional development such as forming healthy relationships,</i>• <i>cognition such as attention and problem solving,</i>• <i>language and comprehensions such as verbal communication skills and</i>• <i>approaches to learning such as varied interests in topics and perseverance in accomplishing goals</i>
Meeting classroom teachers' expectations for kindergarteners	<p><i>In completing your on-going formative and summative assessments and progress monitoring over the past school year, how well would you say [child] fit within your expectations for kindergarteners in your classroom this past year? **</i></p> <p><i>When you think about the children in your classroom this year, what stands out to you about [child] as a learner or classmate? **</i></p>
Understanding primary contributors to the child's growth over the kindergarten year	<p><i>Now that you know what their kindergarten year entailed, how do you think play-based education contributed to [child's] kindergarten experience? ***</i></p>

*asked of all participants

**asked of teachers only

***asked of parents only

Table 4.3*School Readiness Theme Definitions, Descriptions, and Illustrations*

Theme	Definition	Description	Illustrative Quotes
Learners	Expressing beliefs or sharing observations illustrating the child's receptivity to acquiring new knowledge	Stories, perceptions, or observations of how the child engaged in or responded to academic learning	<i>What I could tell is that he was ready to learn. He was really engaged with letters and numbers, and he was eager. He was excited. It was the perfect time to start teaching him how to read and write... (Isaac, 3rd Teacher Interview, p. 13)</i>
Explorers	Expressing beliefs or sharing observations illustrating the child's approach to learning, inquisitiveness, or ability to drive their learning	Stories, perceptions, or observations of the child's creativity, inquisitiveness, or initiative; also includes descriptions of how the child approached learning.	<i>She wasn't coming in just wanting to follow instructions exactly, which I think is a great way to approach learning. So, I think for her, she kept that creative approach. (Nadine, 3rd parent Interview, p. 19)</i>
Empathizers	Expressing beliefs or sharing observations illustrating the child's capacity for empathy with others.	Stories, perceptions, or observations of the child's interactions where they demonstrate compassion, insight, or thoughtfulness.	<i>She's just very thoughtful in how she interacts with others. And I feel like that's something that you don't often see in kindergartners. (Leah, 3rd Teacher Interview, p. 5)</i>
Communicators	Expressing beliefs or sharing observations illustrating the child's self-advocacy, conflict management or relationship skills.	Stories, perceptions, or observations of the child seeking relationships, managing conflict, or negotiating with others to solve social dilemmas.	<i>She knows how to listen to directions, but also if something isn't quite going her way, she has been known to say how she feels. She seems to handle conflict pretty well. (Addy, 3rd Teacher Interview, p. 17)</i>

Figure 4.1

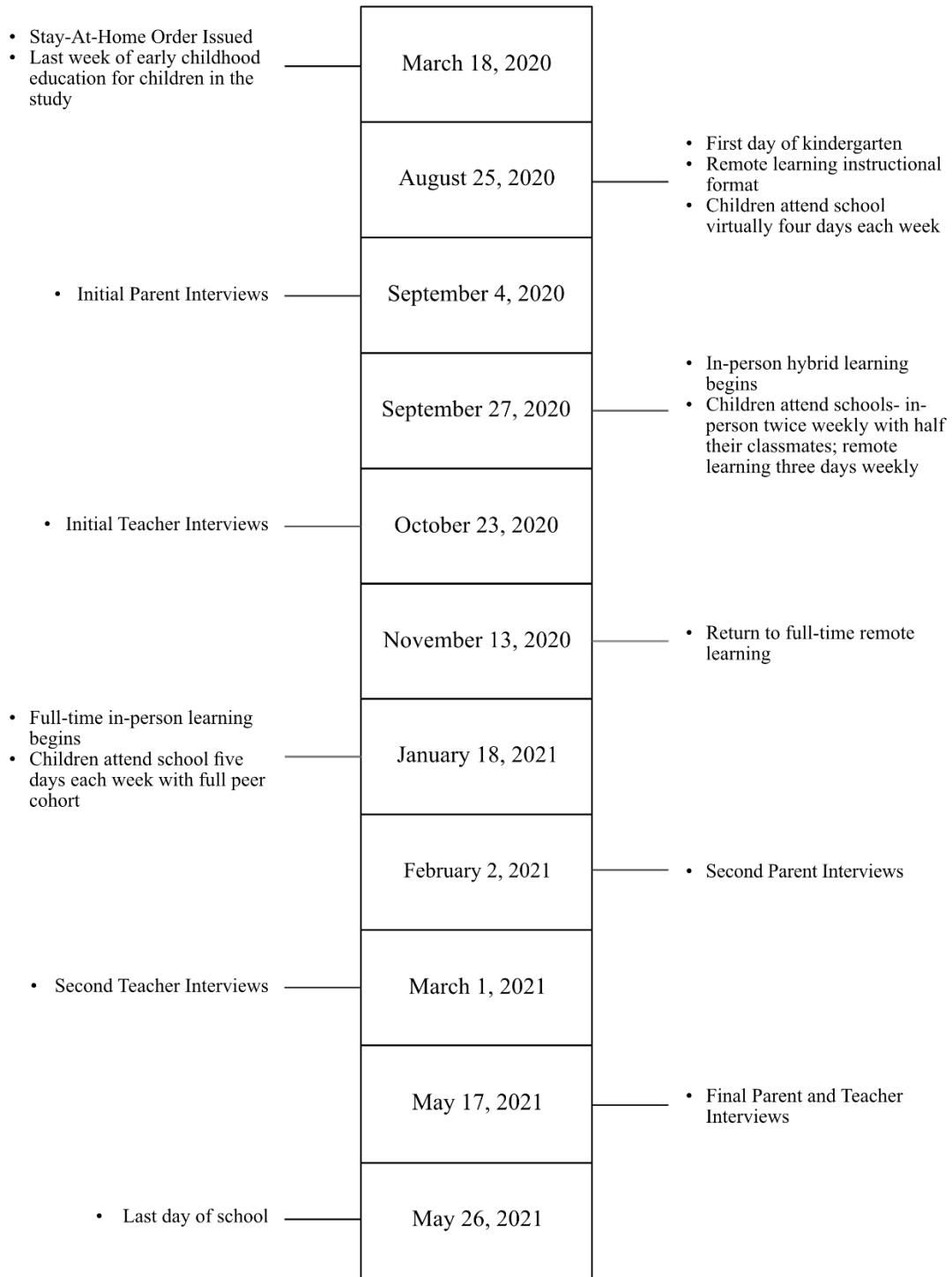


Figure 4.1: Timeline of Public Health Orders Related to COVID-19, District-Wide Instructional Format Shifts, and Participant Interview Schedule

Figure 4.2

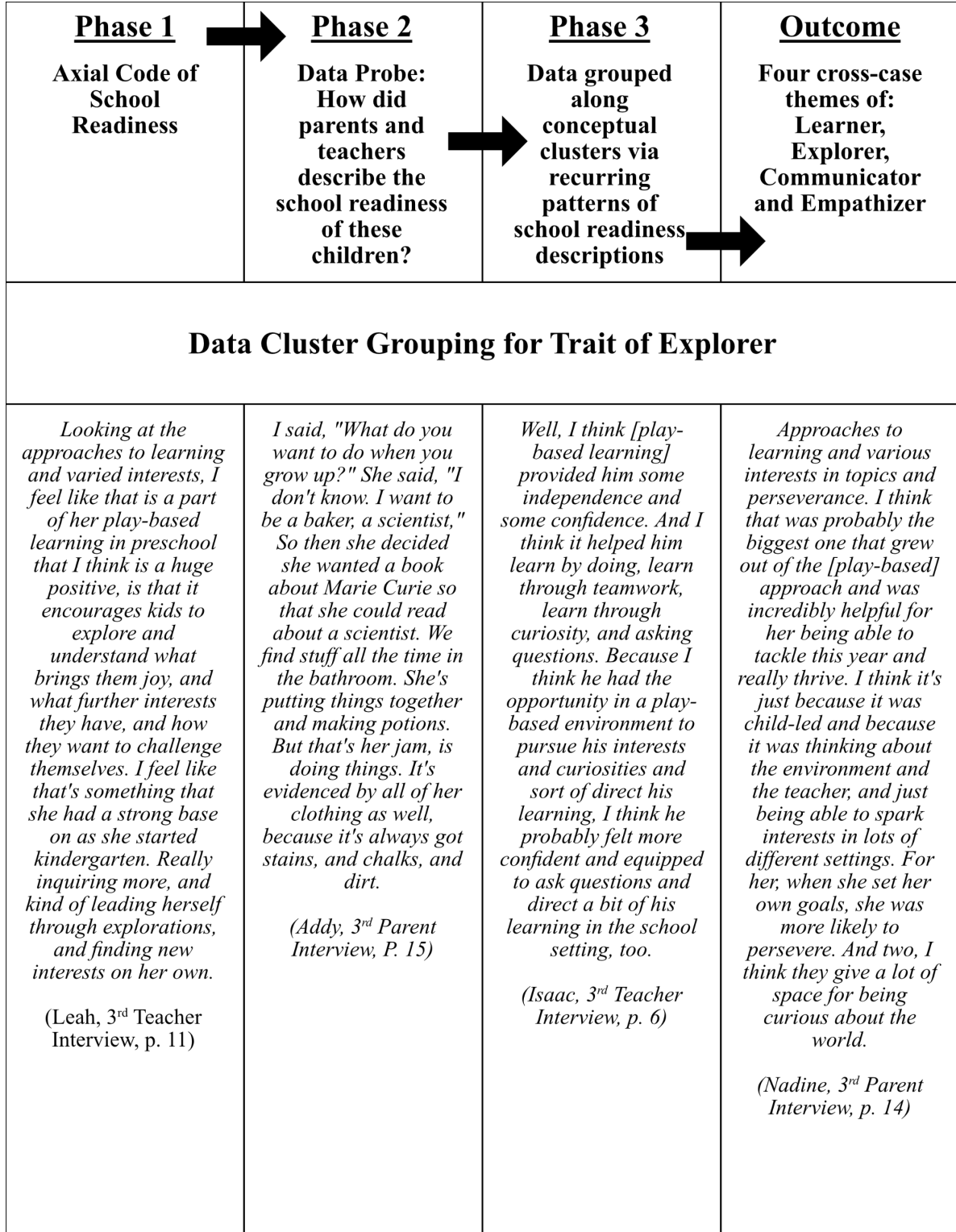


Figure 4.2: Explorer Theme Construction: Within-Case Analysis to Cross-Case Analysis

CHAPTER FIVE: JOURNAL ARTICLE TWO

Play-based Learning and Everyday Adaptability: A Qualitative Study of Children's Kindergarten Transition During Covid-19

Introduction

Fallout from the Covid-19 pandemic has placed more emphasis on addressing children's mental health across educational and childcare settings. Since the onset of the pandemic in March 2020, children have experienced unprecedented levels of occupational deprivation resulting in a shadow pandemic of mental health decline, suicide, education loss, obesity, and screen addiction (Fosco et al., 2022; Graber et al., 2021; McCoy et al., 2021). While the Covid 19 pandemic touched the lives of all children, not all experienced the same degree of adverse health effects. Dodd et al. (2022) found that children who engaged in adventurous play during Covid lockdowns showed fewer symptoms of anxiety and depression than peers who did not play. These findings suggest that play promoted children's positive mental health during the pandemic.

As children experience manageable stress and cognitive dissonance within playful contexts, they develop positive coping mechanisms that prepare them for everyday stress and conflict (Roiste, 2018). Children who constructively respond to everyday life challenges experience higher positive affect and fewer internalizing symptoms of anxiety and depression (DiCorcia & Tronick, 2011; Foley, 2017). For young children, experiencing play is critical in the development of their emotional well-being and positive mental health (Moore & Lynch, 2018).

Vygotsky (1966, 1978) was the first to postulate that play promoted children's positive mental health by fostering *self-regulation*, an intrinsic process of behavioral, emotional, and cognitive modulation in response to environmental demands. Vygotsky believed children

developed self-regulation during play through a combination of self-talk and self-reflection (Vygotsky, 1966, 1978). Self-talk occurs when children internally narrate and process social interactions during play, therefore language acts as a protective mechanism against adversity and stress. Self-reflection occurs when children migrate between fantasy and reality to construct and enact social roles during play; thus, play prompts reflective thinking and social awareness.

The novelty encountered by children during play encourages their exploration, negotiation, and discovery; and these playful experiences entrain children to view change and challenge as positive forms of stress that can be mastered through ingenuity (DiCorcia & Tronick, 2011; Foley, 2017). Because play often involves creative and fluid circumstances, children experience recurring dysregulation as they navigate an array of dynamic roles and experiences in the context of imagination. Solutions to these naturally occurring dilemmas require agency, reflection, and intention on the part of the child; thus, concurrently demanding and facilitating children's focus and flexibility (Bodrova et al., 2013). Therefore, children develop self-regulation through play as they manage their impulses, align their behavior with group play norms, and devise novel solutions to challenge in response to social demands and peer feedback (Bodrova et al., 2013; Roiste, 2018).

As children encounter low-stakes dysregulation early in life, they practice altering their emotions and behavior in response to social cues. Over time, children systematically build upon these foundational schemas as they learn to manage more complex dysregulation in response to increasingly complicated scenarios (Rademacher et al., 2021). Self-regulation fosters children's positive engagement with teachers and participation in learning, allowing children to manage their emotions, follow directions, build supportive relationships, and pursue goal-directed activities (Williford et al., 2021).

Children who develop strong self-regulation skills throughout early childhood are more likely to succeed in kindergarten. In early childhood education centers, children may be exposed to play through play-based learning, a pedagogical approach to young children's education built on a foundation of guided play. With play-based learning, children are given agency and choice within the learning context and collaborate alongside their teachers as they explore and discover new ideas. Adult guidance and specific information are only provided to extend children's learning beyond what they achieve on their own (Weisberg et al., 2-13; Zosh et al., 2018). Because play-based learning promotes children's autonomy, agency, and engagement, children experiencing play-based learning in early childhood develop robust communication, social relationships and flexible approaches to learning (Dodd et al., 2022).

Play has a clear and positive influence on children's mental health and well-being, most notably in the areas of emotional regulation, cognitive flexibility, and social reciprocity, all key predictors of a successful transition into kindergarten (Rademacher et al., 2021). Play is transformative for young children, yet little research exists that studies how children draw upon their prior playful experiences to navigate future life transitions and everyday stress over time. The purpose of this paper is to explore how four children entering kindergarten after years of play-based learning at an early childhood center managed kindergarten during the Covid-19 pandemic-affected 2020-2021 school year.

Methods

This manuscript is part of a larger, longitudinal study of how four children fared in kindergarten following play-based education at a Reggio-Emilia-inspired early childhood center, in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Occupation and Rehabilitation Science at Colorado State University for first author LF. The data describing

the everyday adaptability of these children is presented in this manuscript. We used Yin's (2018) cross-case study approach to design and implement this study. Data collection occurred from September 2020 through May 2021. This study was approved by the Colorado State University Institutional Review Board (approval 19-9519H) and the Poudre School District Research Director.

Participants

We enrolled four participant clusters as cases; see Table 5.1 for details (pseudonyms used throughout). A participant cluster ideally included a parent and a kindergarten teacher both providing perspectives on a child's kindergarten experience. Mothers were the parent informants in all four participant clusters. Three of the four kindergarten teachers participated as informants; one teacher declined participation due to concerns regarding additional responsibility during the pandemic-affected school year. Kindergarten teachers represented elementary schools with three different curricular foci: Core Knowledge; International Baccalaureate; and Science, Technology, Engineering and Math (STEM).

Using Yin's (2018) purposive sampling technique, we recruited parents based on their child's enrollment in the same tuition-based Reggio Emilia-inspired, play-based early childhood center (subsequently referred to as "the center") in Northern Colorado for three or more continuous years prior to entering kindergarten during the 2020-2021 school year. The Reggio Emilia-inspired philosophy of early childhood education emphasizes artistic expression, child-led exploration, engaging environments and collaborative relationships to promote children's curiosity and joyfulness with learning (McNally & Slutsky, 2018). Play-based learning is a pedagogical approach to early childhood education grounded in guided play, where the adult curates a learning context towards an educational goal and the child maintains agency and some

degree of freedom to explore and discover while learning (Zosh et al., 2018). The United States Census Bureau (2022) describes this region as 84.5% White with a median household income of \$72,932 and 56.6% of adults having earned a bachelor's degree or higher. The center itself is a laboratory school associated with a four-year university and is primarily tuition-based.

Parents were recruited via an email invitation from the center's Executive Director. Once a parent agreed to participate in the study, they provided contact information for their child's kindergarten teacher who was then emailed an invitation to join the study. We recruited all participants in the summer preceding the children's kindergarten enrollment.

Participants reported a range of perspectives and prior experiences related to play-based learning prior to joining this study. Two parents reported enrolling their child at the recruitment site because they preferred play-based learning while two others said play-based learning was not a factor in their enrollment decision. One teacher taught at a play-based preschool prior to becoming a kindergarten teacher while the remaining two teachers had no direct experience with play-based learning.

Data Collection

Each parent and teacher participant completed three in-depth semi-structured interviews lasting approximately one-hour at the start, midpoint, and conclusion of the school year; see Table 5.2 for sample interview questions. The focus of each interview was driven by the aim of this study, which was to understand how children managed their transition into kindergarten and adapted to kindergarten following play-based education. Interview protocols were developed and revised with input from the research team. Once the team agreed on a set of questions, the protocol was trialed with a current kindergarten teacher and parent of a child transitioning into kindergarten from play-based learning who were not enrolled in the study. Based on their

feedback, the protocol was finalized. We recorded all interviews, which lasted approximately one hour and occurred over video conferencing, and a professional service transcribed them verbatim.

We developed separate but parallel interview protocols for the parent and teacher groups prior to each interview; this capitalized on each participant's unique vantage point, while also allowing for comparisons of perspectives within and across cases. In the case of Nadine, who had only a parent participant, we used the same parent interview protocol with her mother as we did with the other parent participants. We then blended Nadine's data within the cross-case analysis as appropriate.

Data Analysis

Congruent with Yin's (2018) case-based approach to cross-case analysis, we completed within-case analysis prior to cross-case analysis. Each parent and teacher interview were read multiple times for familiarity, and this resulted in a preliminary list of seven-to-ten major topics specific to each case. Because we were engaged with participants over three interview cycles across a full school year, we were able to triangulate and probe participant responses by comparing teacher and parent insights by case. For example, when Isaac's teacher described Isaac's prowess with social language and relationship building in the classroom, we investigated further by asking Isaac's mother how Isaac's language had developed over time and what influences she saw as contributing to his language skills. From this inquiry, we learned that Isaac had acquired language at an early age and that Isaac's mother believed play-based learning immersed Isaac with emotional intelligence and social reciprocity which fueled his connectedness with others.

At the conclusion of data collection, we merged the full data cache along prominent conceptual clusters as the initial phase of cross-case analysis. Adaptation was a recurring theme in the data and became an axial code linking the data across cases and interview cycles. We operationalized adaptation into a probing question (*How are parents and teachers describing the children's responses to change and challenge throughout their kindergarten transition and school year?*) and constructed cross-case themes using thematic analysis based on this guiding question.

We described and defined each cross-case theme and selected representative quotes to illustrate the theme's meaning. See Table 5.3 for the details of this process.

Quality Assurance

We took many steps to safeguard the integrity of our data analysis. We remained engaged with participants for a full academic year which allowed for data triangulation and opportunities for member checking among participants. We practiced highly disciplined subjectivity through data trail audits and constant comparative analysis within and across cases (Glesne, 2016). We held recurring meetings to build consensus with our findings throughout the study.

Findings

We identified four themes that illustrate how these children adapted to adversity and change over the course of their kindergarten year: *1) willing to adjust, 2) understands the situation, 3) uses advanced language, and 4) embraces challenge*. See Table 5.4 for full descriptions and definitions of each theme.

“Willing to Adjust”

This theme centers on the parent and teachers' observations of how the children adapted to kindergarten and responded to change and adversity. The 2020-2021 pandemic-affected school

year was fraught with uncertainty for these children. They were unable to participate in orientation events and school tours due to public health orders limiting in-person events and they began their kindergarten year in remote learning, an unfamiliar educational context. These children also navigated four district-wide instructional format shifts between remote and in-person learning as well as classroom and school-specific instructional format shifts in compliance with local public health protocols.

Participants described how the children demonstrated their adaptability to the ever-changing public health orders through their attitudes and actions. Addy's mother and teacher shared examples of her flexibility in response to the evolving school year while Isaac's mother described his perseverance. "I think she's just taking it all in stride and rolling with it," said Addy's teacher as she reflected on how Addy remained engaged and productive with kindergarten during both remote and in-person learning. "Kindergarten changes and she changes, and it changes, and she changes," echoed Addy's mother. While Addy's mother had initially reported concerns that Addy was unfocused during the early weeks of remote learning when kindergarten began, she also recognized that Addy's focus improved drastically once she was able to attend in-person school and "see" what a kindergarten class should look like. Overall, she believed that Addy kept a positive attitude given the changing expectations and protocols for school and the need to participate in learning through a computer. Isaac's mother described Isaac's attitude about remote learning by saying "Even through those times where he was less enthusiastic, he still was great. Even though he didn't really enjoy being online, he did it."

The parents also reflected on how their children altered their social and leisure activities to better align with public health restrictions on social gatherings. Leah's mother described how Leah approached choosing between horseback riding or soccer as an extracurricular activity.

She was really being mindful about group sizes and how we're being exposed and is pretty insightful as to knowing this is what we need to do to stay safe. So, horseback riding was a really great activity choice, because it really only involved her and the instructor. (Leah, 2nd Parent Interview, p. 13)

Nadine's mother also noted Nadine's contentment with more solitary activities at home, a shift from pre-pandemic norms where she would have enrolled in after school activities and socialized with friends each weekend.

I feel like everything has been so different and closer to home [since the pandemic], and we have a much tinier life. [Nadine] now loves just putzing around and taking her time exploring the yard or going for walks and I think that's really helpful for her and she really enjoys it. (Nadine, 2nd Parent Interview, p. 7)

“Understands the Situation”

This theme illustrates how the children's understanding of the pandemic and its related public health orders fostered their responses to navigating kindergarten in the context of Covid-19. Parents and teachers described the self-reflection and thoughtfulness the children showed in response to the pandemic's public health orders. Their stories and observations illustrated how the children contributed to community health and appreciated the reasons for the various restrictions they had to follow. Nadine and Leah's experiences provided the strongest examples of this theme, as both girls used their artistic creativity to bring joy to their neighbors and reinforced public health orders at home. Nadine's mother shared “I feel like [Nadine]'s getting that the rules are for everyone to be safe. I think she's in tune with that, and says things like "since COVID, we have to do all of these things like stay away from people and wear masks”.

Leah's mother described how Leah would correct her if she inadvertently acted against public health orders.

She's stopped me a few times when I've offered a big package of pretzels to her at-home learning pod classmates. She'll say, "No mom, they need to be individually wrapped." So clearly, she's been trained, and she very much understands the situation. (Leah, 2nd Parent Interview, p. 16)

The children also recognized more vulnerable members of their community and created opportunities to bring joy to others during this challenging time. Leah's mother told a story where, after a week of remote learning, Leah and her at-home learning pod classmates decided to make a hopscotch course on the sidewalk for pedestrians. "They wanted everybody coming by our house to try it, and it was just really, really fun and showed them kind of making lemonade out of a lemon situation." Nadine's mother described how Nadine and her brother made sidewalk chalk art for an elderly neighbor who lived alone and was not receiving visitors during the pandemic.

We have a neighbor down the street who's in her 80s and when she's on her porch, the kids do chalk drawings for her. It's just a very sweet way of showing our neighbors that we care without physically interacting so much. (Nadine, 2nd Parent Interview, p. 8)

"Uses Advanced Language"

This theme describes the protective role social language played in promoting the children's adjustment to life during the pandemic. Parents and teachers illustrated how these children used social language to articulate the supports they needed to process the challenge and uncertainty of the pandemic-affected school year. The children's prowess with labelling their feelings and communicating their needs to trusted adults enabled them to find positive coping mechanisms to

mitigate their stress reactions. Isaac's experience provided the strongest example of this theme. Isaac's mother believed that Isaac's language skills gave him a sense of confidence because he knew he could articulate his feelings and obtain the support he needed to handle unsettling events.

When he went back after break, he was so sure he was just going to do the kiss and go line, but then he said, "I'm feeling nervous. I'm not so sure about the kiss and go line." He wasn't in distress, but he was able to articulate, "I guess I do want you to walk me to my classroom door, and here are the reasons why." He knows that he can articulate what he's feeling and that he can advocate for himself with his words. (Isaac, 2nd Parent Interview, p. 19)

The use of language also enabled the children to articulate their needs and advocate for themselves at home and at school. Leah's mother described a time of frustration during the final week of remote learning before winter break.

I think we just hit a breaking point there and she just said, "Mom, I'm so tired." I think that she was able to see and recognize that she needed her own break, and her way of creating it was to lay down in her room. (Leah, 2nd Parent Interview, p. 11)

Nadine's mother also described how Nadine coped with difficult feelings at home. She spoke of a time during the school year when Nadine was exhausted from remote learning and asking when she could do in-person school again.

In those moments, she would go up to her room and just take some time by herself. She had some music up there that she liked, and she would draw by herself. And she has one of those squeazy stuffies and would say, "Sometimes when I'm angry I just need to squeeze my stuffy." (Nadine, 2nd Parent Interview, p. 18)

“Embraces Challenge”

This theme centers on how the children responded positively to the many forms of challenge they encountered over the course of their kindergarten year. While the pandemic brought about many unique obstacles, the children also encountered the expected stress of developing their academic skills and adjusting to kindergarten life. Parents and teachers described how the children approached these new expectations with confidence and ingenuity, traits teachers found to be exceptional during the pandemic-affected school year when so many children in their classrooms struggled with self-esteem.

Leah’s teacher described how Leah embraced her role as a student when she was asked to work through a difficult math concept by saying “She doesn't want things to feel easy all the time, because she sees the good that comes from that challenge, and she wants to do well and apply what she knows.” Isaac’s mother also noticed how Isaac thrived in response to having more responsibilities by observing, “Isaac has a little bit more purpose to his day as a kindergartener. He's got a job to do when he goes to school, he's challenged and he's finding a lot of satisfaction in that. ”

The children also employed creative problem solving as they encountered the academic challenges of kindergarten. Nadine’s mother described Nadine’s ingenuity with completing her 100-day Project when she could not count to 100.

So, she wrote out to 100 in groups of 10, and she didn't know what all the numbers were called but she knew the pattern. She said, " I know that eight comes next, and then nine comes after that." It's really cool to see her use what she had learned even when she didn't know everything. (Nadine, 2nd Parent Interview, p. 2).

Discussion

The purpose of this qualitative cross-case study was to describe how four 5-year-old children drew upon their experiences with play-based learning to navigate the challenges of daily life as a kindergartener during the pandemic. Participants described these children as willing to adjust to the everchanging school year, understanding the pandemic and its associated public health rules, using advanced language to communicate their needs, and embracing the challenge of navigating a substantial life transition during an uncertain time. Participants believed that play-based learning contributed to these children's adaptability by equipping them with many ways of learning, an appreciation for the perspective of others, command of social language, and a positive view of change and challenge.

Literature addressing how children develop everyday adaptability through exposure to manageable stress suggests that play fosters children's positive mental health via three main pathways. First, play immerses children in novelty and imagination, which encourages children to develop many ways of thinking and a positive view of uncertainty (DiCorcia & Tronick, 2011; Foley, 2017). Second, play fosters children's self-regulation through a combination of self-talk and self-reflection; by developing complex social language and habits of introspection, children create positive narratives to explain conflict and ambiguity (Vygotsky, 1966, 1978). Finally, play encourages children to develop social awareness as they recreate and enact social scenarios and roles. This drives children to take the perspective of others, thus expanding their ability to delay gratification and temper their impulses for the common good of the group (Bodrova et al., 2013; Roiste, 2018).

Entering kindergarten with well-established coping strategies enabled the stress of navigating school during the pandemic to feel manageable to these children, thus they could focus on their

role as students rather than succumbing to disquietude. When the children encountered pandemic-related stress, they talked through their feelings, connected with others, and found joyfulness in everyday moments. The children responded to the expectations of kindergarten with persistence and self-assurance, which fueled their competency and growth as students. Teacher participants shared many stories of the challenges they saw in their classrooms with children feeling anxious and unsure of themselves, and therefore being unable to assimilate to classroom expectations. However, teachers also consistently reported that the children who were the focus of this study were adept at meeting classroom expectations and this facilitated their growth and academic advancement as students. The children illustrated both competency and autonomy, which allowed them to overcome adversity and successfully acclimate to their new role as kindergarteners.

These findings align well with Vygotsky's (1966, 1978) description of self-regulation as the merging of internal dialogue and behavioral responsiveness to social demands. Participants shared many examples of the children using their language skills to describe adverse emotions and to express their needs to trusted adults. For example, Isaac and Leah were both able to tell their parents when they felt overwhelmed by the pandemic, which enabled them to respond with empathy and understanding. The children also accepted alterations in their daily routines as public health orders evolved. They created moments of connection despite social restrictions, such as Nadine creating sidewalk chalk for her elderly neighbor. By sharing their experiences and finding joyfulness in everyday moments, the children maintained an overall positive mental state and avoided the most severe manifestations of pandemic-related duress.

These findings add to the literature by illustrating how parents and teachers viewed play-based learning's effect on the adaptability of these children navigating both major life stressors

and expected life transitions. Other studies of play and adaptability have focused on play's immediate effect on children, for example, Dodd et al. (2022) study of how play affected children's mental health during the pandemic. Our study offers an example of how children draw upon play-based backgrounds to employ effective coping strategies in the face of a global pandemic and substantial life transition.

Limitations

Congruent with cross-case study and qualitative research paradigms, these findings describe the adaptability and positive response to challenge seen in four children following immersion in a play-based early childhood program. While the themes align with play-based learning scholarship, there are many influences on a child's development over time and, therefore it is not possible to exclusively attribute these findings to play-based learning alone. For example, the children who were the focus of this study were well supported by their involved parents and compassionate teachers. They also lived in a community with many outdoor leisure offerings for young children that were accessible during the pandemic, such as horseback riding and skiing. Nonetheless, the teacher and parent participants believed that play-based learning was a significant positive influence on the children's mental health and were able to make explicit connections between competencies the children developed during play and the mechanisms through which they coped with the pandemic and kindergarten transition.

Conclusions

Early childhood professionals continue to grapple with a shadow pandemic of developmental regression and social isolation as children are reintroduced to educational settings and early childhood centers in a post-pandemic world. Understanding factors that enabled children to mitigate the most devastating impacts of the pandemic and its related public health orders can

inform parenting practices and education policy for the next generation. Our study offers insight into the play and adaptability relationship by exploring connections observed by parents and teachers related to how children develop positive health from play-based learning.

Adaptability arises when children are emotionally regulated rather than emotionally reactive. When children have opportunities to develop positive coping mechanisms in the context of everyday stress, they are better prepared to employ and expand upon these mechanisms as they encounter increasingly more complex stress. These findings offer an in-depth description of young children's adaptability during the pandemic-affected school year from the perspectives of their parents and teachers. Early childhood professionals and policy makers can use these findings to inform their decisions in creating policy and practices that foster children's positive mental health.

Table 5.1*Descriptors of the Participant Clusters (code names used)*

Descriptors and Characteristics	Child Pseudonym			
	Addy	Isaac	Leah	Nadine
Gender	Female	Male	Female	Female
Age at initial interview	5 years, 7 months	6 years, 1 month	5 years, 6 months	5 years, 6 months
Birth order	2 nd of two siblings	1 st of two siblings	2 nd of two siblings	2 nd of two siblings
Parental relationship	Married	Married	Married	Married
Parental employment	Employed	Employed	Employed	Employed
Teacher's years of experience	28 years	14 years	11 years	unknown
Curricular focus of school	Core Knowledge	Science, Technology, Engineering and Math	International Baccalaureate	International Baccalaureate

Table 5.2*Sampling of Interview Protocol Questions by Participant Group*

Participant Group	Sample Question
Teacher and Parent Interview Protocols	<i>Describe a time when [child] encountered change or challenge during the school year. How did [child] respond?</i> <i>How do you think play-based education contributed to [child's] kindergarten experience?</i>
Parent Interview Protocol	<i>Outside of remote learning, how would you say [child] life as a kindergartener has been different, in comparison to [sibling] experience or the experience you imagined [child] would have?</i> <i>What has [child] said about all the changes they have experienced with kindergarten over the past school year?</i>
Teacher Interview Protocol	<i>How have the public health orders related to COVID affected your students' kindergarten transition and school year?</i> <i>Outside of remote learning, how would you say [child] kindergarten experience has been different compared with previous kindergarten cohorts you have taught?</i>

Table 5.3

Willing to Adjust Theme Construction: Within-Case Analysis to Cross-Case Analysis

<p>Phase 1 Axial Code Adaptability</p>	<p>Phase 2 Probing Question How did participants describe these children's responses to adversity and challenge?</p>	<p>Phase 3 Data Groupings Descriptive patterns identified across the cases</p>	<p>Phase 4 Cross-Case Themes Willingness to adjust Understands the situation Advanced language Sees the good of challenge</p>
<p>Sample of Data Excerpts for <i>Willing to Adjust</i></p>			
<p><i>There's just a willingness to adjust to [public health orders], whereas before it was a play date with multiple friends at once. Now it's just this idea of one other friend we can get together with.</i> [Leah, 2nd Parent Interview]</p>	<p><i>She really rolled with it, which was amazing to me. She just really seemed like, "Okay, that's fine. We'll do this."</i> [Nadine, 2nd Parent Interview]</p>	<p><i>It was just surprising to me that being a five-year-old, she was okay getting online and she was okay talking her class that way. For the most part she's just adapted.</i> [Addy, 2nd Parent Interview]</p>	<p><i>He is just in command, from online, to hybrid, to back online, to fully in person. He's just doing great at all of it, and we haven't had huge rocky transition periods. We really haven't.</i> [Isaac, 2nd Parent Interview]</p>

Table 5.4*Everyday Adaptability Theme Definitions, Descriptions, and Illustrations*

Theme	Definition	Description	Illustrative Quotes
<i>Willing to adjust</i>	Expressing beliefs or sharing observations illustrating the child's productive adaptability to change and adversity.	Stories, perceptions, or observations of how the child altered their attitude and actions to remain engaged with kindergarten.	<i>I think just kind of fostering that idea of let's be flexible, let's figure this out. I think she understands all of that. I really think she's adapted pretty well to everything, because there's so many new rules (Leah, 2nd Parent Interview, p. 13)</i>
<i>Understands the situation</i>	Expressing beliefs or sharing observations illustrating the child's awareness of the COVID-19 pandemic and public health orders.	Stories, perceptions, or observations of how the child responded to the pandemic and its related public health orders with self-reflection and thoughtfulness.	<i>She's even like, "Oh, well, I love to hug my friends, but I understand that I can't do that." I know adults that don't understand that. Like, all the time. (Nadine, 2nd Parent Interview, p. 14)</i>
<i>Uses advanced language</i>	Expressing beliefs or sharing observations illustrating the child's use of language to self-advocate and connect with others.	Stories, perceptions, or observations of how the child used language to self-advocate and connect with others.	<i>His language skills enable his ability to share how he feels on a different level than a lot of other kids. I think that he is very in tune with his emotions, and I think he's very fair in sharing what he needs. [Isaac, 2nd Teacher Interview, p. 8)</i>
<i>Embraces challenge</i>	Expressing beliefs or sharing observations illustrating the child's positive response to challenge.	Stories, perceptions, or observations of the child responding positively to challenge.	<i>She is right where I want her to be academically because she's a very hard worker who takes feedback well and tries to apply what she knows to make progress with things like her reading and writing. (Addy, 2nd Teacher Interview, p. 2)</i>

CHAPTER SIX: JOURNAL ARTICLE THREE

Parent and Teacher Perspectives on Children's Kindergarten Competency Following Play-based Learning at a Reggio Emilia-Inspired Preschool

Introduction

For young children, learning is a process of exploration, social awareness, and self-discovery that builds their readiness for knowledge acquisition as they matriculate through the primary grades. The cognitive processes that enable children to learn in school are grounded in the social experiences of early childhood, as children use their everyday observations to figure out how to engage with others, take turns and manage conflict and emotions (Immordino-Yang et al., 2019). Children draw upon these thinking, relating and self-monitoring skills to build their approaches to learning, social relationships and self-management, all of which are foundational in supporting children's learning and engagement in school (Goodrich et al., 2015; Snow & Matthews, 2016).

Viewing play through an educational lens illustrates the ways in which children become learners through play-based experiences. For centuries, early childhood education has centered on play-based instruction, where young children explore the outdoors and discover knowledge by following their interests alongside peers and in collaboration with teachers trained to scaffold learning within the child's own inquiry practices. Vygotsky (1966, 1978) described the play and learning relationship by emphasizing the contribution of imagination through play to children's learning. Vygotsky (1966, 1978) explained that play provides a background for changes in impulse control, higher level mental functions and social consciousness as children create and follow social rules for given imaginary situations.

Play-based learning is built on a foundation of guided play, which sits as the pedagogical middle ground between free-play and direct instruction (Zosh et al., 2018). In guided play,

children have agency and choice, collaborate with their teachers, and receive adult guidance as needed to extend their learning. Free play is the form of play where children use their imagination to create and explore social roles. Children experience great joy when they play freely with others, but the fluid nature of free play makes it a poor fit for educational purposes (Weisburg et al., 2013; Zosh et al., 2018). Direct instruction occurs when teachers transmit knowledge directly to their students, such as teaching a student the letters of the alphabet. While effective with older students and adult learners who are capable of abstract thought and directing their attention outside of their immediate interests, very young children need content situated within their interests and presented in an exploratory manner for learning to be effective (Clements & Wright, 2022). When early childhood professionals design learning activities with a clear goal and scaffold and support children's engagement towards that goal, they enact play-based learning.

Through play-based learning, children discover how to negotiate with others, explore topics or ideas and reconcile their interests and motivations within a social context (Pramling-Samuelsson, & Johansson, 2006). These types of learning experiences build the intellectual and social aptitudes that will support more traditional cognitive or knowledge-based learning as children reach a level of cognitive maturity where this is effective. In the context of twenty-first century education, early childhood centers emphasizing play as the primary context of young children's learning will refer to themselves as play-based learning centers.

There is ample support for play-based pedagogy both in preparing children for specific competency in literacy, science, and math and for the more global learning readiness indicators such as developed learning approaches, self-management, and social relationships. Bahlmann Bollinger and Myers (2019) found that critical precursors to writing performance such as

narrative language, thought representation, meaning making and social collaboration, were more commonly seen in playful than non-playful contexts. Writing is a social process that is complex and challenging for young children. Preschool environments that offer supportive opportunities for children to express their ideas through both conventional and unconventional means tend to elicit more engagement, interest, and motivation for writing than environments using academic pressure or rote practice (Bahlmann Bollinger & Myers, 2019). When young children view written expression as a system of meaning-making where drawings, stories and written letters or words come together to represent their ideas and thoughts, they tend to naturally pursue these activities and develop mastery as they are ready.

Miller and Saenz (2021) considered how pedagogical approaches, classroom spaces and teacher interactions affected the development of children's science and engineering practices. They found that children who were allowed to play, uninterrupted, with natural materials in a social context showed more frequent and sophisticated science and engineering thinking than children who were taught scientific principles in an adult-directed, knowledge transmission format. The authors concluded that child-led, play-based pedagogy allowed children to use their own observations and ideas to affect the outcomes of their play, thus they learned by "doing" and problem-solving rather than being directed or given "the answer." Because children were evaluating and sharing ideas among themselves through their playful interactions, they were more invested in the process of discovery and were challenged to use their thinking and communication skills to achieve a shared outcome. Effective teacher interactions included modeling questions and providing information when asked (Miller & Saenz, 2021).

For more global dimensions of kindergarten performance, play-based learning has also been shown to be effective pedagogy for young children because of its positive influence on self-

regulation. Self-regulation, a core predictor of academic achievement, classroom adjustment and social competence, refers to both metacognitive and social-emotional strategies. When children employ metacognitive strategies, they use their thinking skills to affect their engagement and interactions. For example, children use their planning, monitoring, and reflective skills to remain attentive during learning. Emotional regulation reflects children's knowledge about their own emotions and how to express their emotions given the circumstances. Children use emotional regulation when they resolve conflicts with others and work collaboratively with peers (Slot et al., 2017).

Self-regulation is a situated skill, reflecting the interface between children's internal competency with managing their interactions and engagement within the specific content and demands of their classrooms. Slot et al. (2017) studied the relationship between play and self-regulation in the classroom and found important correlations between the quality of children's play and the extent to which effective self-regulation strategies developed. Consistent with Vygotsky (1978), the authors found that assuming social roles through imaginary play facilitated children's use of social language to manage group conflict and express their needs and desires. Social language allowed the children to have a means of communicating with others, thus dampening emotional reactivity, and promoting harmonious relationships (Slot et al., 2017).

The National Association for the Education of Young Children (NAEYC) and the American Academy of Pediatrics (AAP) emphasized the value of developmentally appropriate teaching practices that deliver high quality instruction at optimal times within the child's developmental window of mastery. Children aged three to five years learn best when they are actively constructing knowledge within a social context, with the freedom to collaborate with others and explore their interests. When children matriculate into kindergarten, they draw upon these

foundational learning dispositions to build their competency with academic subjects and make progress with learning (AAP, 2016; NAEYC, 2022). The theoretical connection between the learning dispositions fostered in preschool and learning receptivity arising in kindergarten has been supposed but not formally studied via longitudinal, exploratory designs. The purpose of this manuscript is to describe how four children fared as kindergarteners following play0-based early childhood learning from the perspectives of their parents and kindergarten teachers.

Methods

This manuscript presents data from a larger longitudinal study related to kindergarten transition following play-based early childhood education. We defined kindergarten performance broadly and in consideration of how these children acclimated to their new roles as learners and classmates. We used Yin's (2018) cross-case study approach to design and implement this study. Data were collected from September 2020 through May 2021. This study was approved through the Colorado State University Institutional Review Board (approval 19-9519H) and the Poudre School District Research Director.

Research Design

Cross-case study is the analysis and synthesis of multiple cases, allowing for comparisons among cases. Cross-case study research helps the investigator understand how context affects an outcome and is useful when the researcher seeks to describe a phenomenon as it naturally unfolds over time (Creswell & Clark, 2018; Yin, 2018).

We followed children over the course of their kindergarten year to capture a more in-depth view of their kindergarten performance from the perspective of their kindergarten teachers and parents. We collected data at the onset, midpoint, and conclusion of the school year and analyzed each data cache to inform subsequent data collection. Semi-structured interviews

lasting approximately one-hour per encounter with the parent and teacher participants were the main data source, with field observations during remote learning and school-based artifacts (e. g., progress reports and work samples) supplementing the interviews. Through constant comparative analysis, we developed and explored patterns within and across cases over time; these informed our initial findings and subsequent data collection efforts (Yin, 2018).

Participants

Using Yin's (2018) purposive sampling technique, we recruited parents to participate in this study based on their child's enrollment in the same Reggio Emilia-inspired, play-based early childhood center in Northern Colorado for three or more continuous years prior to entering kindergarten during the 2020-2021 school year. The Reggio Emilia-inspired philosophy of early childhood education emphasizes artistic expression, child-led exploration, engaging environments and collaborative relationships to promote children's curiosity and joyfulness with learning (McNally & Slutsky, 2018). Play-based pedagogy is grounded in guided play, where the adult curates a learning context towards an educational goal and the child maintains agency and some degree of freedom to explore and discover while learning (Zosh et al., 2018).

We enrolled four participant clusters as cases; see Table 6.1 for details. A participant cluster ideally included a parent and a kindergarten teacher both providing insight into a child's kindergarten experience. Four participant clusters are considered optimal when using cross-case methodology, as this number allows for variation in participant experiences but also the rich, immersive descriptions needed to fully explore participant perspectives and identify representative themes (Yin, 2018).

Once parents enrolled in this study, they provided contact information for their child's kindergarten teacher so we could extend an invitation to join the study. We recruited all

participants in the summer preceding the children's kindergarten enrollment. Mothers were the parent informants in all four participant clusters and three of the four invited kindergarten teachers participated in this research. One teacher declined participation due to concerns with additional responsibility during the COVID-19 pandemic-affected school year. Kindergarten teachers represented elementary schools with three different curricular foci: Core Knowledge; International Baccalaureate; and Science, Technology, Engineering and Math (STEM).

All children enrolled at the recruitment site were immersed in play-based learning and Reggio-Emilia philosophy, and parents reported different reasons for choosing this early childhood education center for their child. Two of the parents reported that the desire for their child to experience play-based learning was influential on their enrollment decision, while two other parents stated that the center's reputation as a high-quality early childhood environment informed their enrollment decision. None of the parents reported being familiar with the Reggio Emilia-inspired philosophy prior to their child enrolling at the school.

Pandemic Influence

These four children entered kindergarten during the 2020-2021 school year. Their kindergarten experience was altered by public health orders related to the COVID-19 pandemic, including cancellation of kindergarten transition events, such as back-to-school night, and multiple shifts in instructional format during the school year. Public health requirements of face masks, social distancing, and isolated classroom cohorts limited their participation in specials, lunchroom, recess, and group learning experiences. All participating kindergarten teachers described challenges with translating learning activities to remote platforms, altering their scope and sequence of curriculum because of virtual learning and emotional and behavioral challenges with engaging students during in-person learning. Over half of these children's kindergarten year

occurred through remote learning and all their in-person school days were affected by public health orders.

Public health orders also altered our ability to collect data related to the children's kindergarten year. Visitors were not allowed in public schools during the 2020-2021 school year; therefore, we were unable to conduct field visits at the schools or in-person interviews with teachers. We adapted to these restrictions by completing home visits during remote learning days, requesting work samples and test scores from participants to illustrate their descriptions, and using video conferencing for most interviews.

Procedures

We used semi-structured interviews with parents and teachers as the primary data source. Each parent and teacher participant completed three in-depth semi-structured interviews lasting approximately one hour per encounter. The timing of the interviews coincided with the start of the school year and planned instructional format shifts. We recorded all interviews, and a professional service transcribed them verbatim. Transcripts, field notes and all documents related to the participants were stored on a secure server.

We developed separate but parallel interview protocols for the parent and teacher groups prior to each interview. Some questions were written for both groups and other questions were written only for parents or only for teachers. We wanted to capitalize on each participant's unique vantage point, while also allowing for comparisons of perspectives within and across cases. For example, we asked both parents and teachers about what the child said was going well for them in kindergarten. We asked teachers to provide a work sample and explain how this work illustrated the child's learning. We asked parents to describe how their child had grown academically over the course of the school year. See Table 6.2 for interview question examples.

In the case of Nadine, who had only a parent participant, we used the same parent interview protocol with her mother as we did with the other parent participants. Nadine's mother provided work samples and school-generated reports, which is something asked of the teacher participants for the other cases. We then blended Nadine's data within the cross-case analysis as appropriate.

Data Analysis

Congruent with Yin's (2018) case-based approach to cross-case analysis, we analyzed each parent and teacher interview upon its conclusion and merged the interviews by case to complete the initial within-case analysis. Each transcript was read multiple times by first author LF for familiarity then organized by topic based on participant emphasis. This process yielded a list of eight to twelve major concepts discussed within each interview. At the conclusion of our data collection, we merged the preliminary topic list along conceptual clusters and identified three primary axial codes linking the data across cases. The findings presented within this manuscript focus on the axial code of *kindergarten performance* which we operationalized into a probing question of "*how are parents and teachers describing this child's performance as a classmate and learner throughout their kindergarten year?*" By comparing data across the four cases, we were able to construct common themes related to kindergarten performance as represented by the parent and teacher participants.

Within-Case Analysis. In the initial phase of analysis, LF read each transcript multiple times for familiarity, documented any reactions and biases, and listed all topics emphasized by the parent and teacher participant for each case. In the second phase, these preliminary topics provided an organizational structure for grouping the data into conceptual clusters. In the third phase, LF systematically worked through groupings and developed initial codes with extrapolated, verbatim text illustrating the themes under consideration. In the fourth phase, LF

defined and described the themes from the individual cases and selected representative quotes for illustration. Table 6.3 illustrates this process.

Cross-Case Analysis. Cross-case analysis occurred after individual case analyses. First, I reduced the data set to focus on the most significant conceptual clusters; these became axial codes linking the data across cases. For this manuscript, kindergarten performance, defined broadly as how children presented as classmates and learners at home and school, was the axial code of interest. In the second phase, I operationalized kindergarten performance into a probing question (*How are parents and teachers describing the kindergarten performance of these children?*), which guided the cross-case analysis. Finally, I identified cross-case themes using inductive coding to extrapolate the major descriptors of kindergarten performance common to all cases. I engaged in ongoing conversations with members of the research team throughout data analysis, The findings were discussed and vetted until consensus was reached.

Quality Assurance

We took many steps to safeguard the integrity of data analysis throughout the study. We remained engaged with participants for a full academic year which allowed for data triangulation and opportunities for member checking (Glesne, 2016). We asked participants to clarify or expand on previous statements to ensure accurate representation of their viewpoints as needed across the interviews. We practiced highly disciplined subjectivity through data trail audits, explicit links between interpretation and participant excerpts, and constant comparative analysis within and across cases (Glesne, 2016). We held recurring meetings over the course of the study to discuss the findings and arrive at consensus with other members of the research team for each step of analysis. A second coder assisted with defining and clarifying codes and engaged in ongoing conversations to construct the final themes.

Findings

We identified four themes that illustrate how these children performed as kindergartners following play-based early childhood education: *get your brain thinking, just a good little student, I know I can count on her*, and *in-tune with the class*. I describe and illustrate these themes below; see Table 6.4 for full definitions and descriptions of each theme.

“Get Your Brain Thinking”

This theme centers on the children’s desire to be challenged by their learning and advance their understanding of the kindergarten curriculum. The children approached learning with a desire to be intellectually challenged and to perform at the apex of their academic abilities, with individual children showing variation in how they achieved this. Addy was focused on reading harder books, Isaac entered kindergarten with higher achievement in reading and math but less proficiency with writing, and Leah pursued harder math and writing.

Addy’s mother described a conversation with Addy where she reflected on the kindergarten year. “I asked her what her favorite part of kindergarten was, and she said, “Getting smarter.” She went on to describe how Addy wanted to be challenged by reading rather than work with “easy” picture books.

She's pretty excited to be able to read. But she doesn't want to read the little flip books. She doesn't want to mess with that. She wants to read the books with the bigger words that have multiple sentences. I think by the end of kindergarten that she'll be able to get through a large word book with sentences on each page. (Addy, 2nd Parent Interview, p.

5)

Leah’s teacher described a conversation she had with Leah about what she had learned in kindergarten. She asked Leah how she felt about writing and Leah responded with “Sometimes

it's really hard to write, but it gets your brain thinking". She reflected further by describing how Leah responds to challenges.

So, it goes back to the piece where she appreciates that challenge. You know, she's not one of those kids where they just completely shut down because of the challenge. She knows it feels hard, and she knows that hard piece is a good thing because it's, in her words, it's getting your brain thinking, and she knows she's going to find success if she pushes through with it. I feel like she gets excited when she's feeling like there's a challenge to overcome or conquers a challenge. (Leah, 2nd Teacher Interview, p. 17)

While all the children found satisfaction in their academic accomplishments, they also wanted to produce something with their newfound knowledge. Creative work was encouraged in all the kindergarten classrooms and parents and teachers shared many stories of the children using their knowledge to serve a creative purpose. Nadine's mother described the books Nadine made about owls after a lesson at school.

I asked her about her biggest accomplishment of kindergarten at dinner. And she said that she made these 'all about' books. And so, she had made one that she loves about owls from when she learned about owls and owl babies and where they nest and what they eat and what they do. And so, she wrote the words and drew the pictures and she loved that. And she was really proud of herself. And she said, "I didn't know how to write books before." (Nadine, 3rd Parent Interview, p.9)

Isaac's teacher also described how Isaac used his academic skills to represent what he knew or to share his knowledge with others. She described how he sought to use his knowledge to produce something of intrinsic value.

I remember the first day that I met him, he said he was really excited about science. He just has a lot of background knowledge that he could share out, and he's been able to do some writing about it. I think that his academic strengths have always been there, his comfort with letters and sounds, and his number strengths have been there. But I think what has made the most growth this year is his ability to access them and do something with them, produce something with what he knows. (Isaac, 3rd Teacher Interview, p. 29)

Participants also described all of the children as excited for learning and wanting to go beyond the scope of classroom expectations when producing work. "I just can't stop thinking about math." Nadine told her mother on a walk home from school. Leah's teacher described Leah's eagerness to excel in the classroom.

Academically, she's just doing great in all areas. I think she is interested in excelling in all these things. She's focused, and she wants to do her best. So that increases her success in all areas. Her willingness and desire to learn definitely promotes that growth. (Leah, 2nd Teacher Interview, p. 2)

Isaac's teacher shared how Isaac was excited to learn and sought permission to extend his work in the classroom. She shared that Isaac often asked to do more work than was expected of the class.

He is excited, so very excited. He loves to learn. If I give him some words that I want him to build a sentence with, he asks if he can build his own after he builds the sentences that I asked him to. So, I say, "If you want to go above and beyond, then you can build your own sentences after this." (Isaac, 2nd Teacher Interview, p. 19)

“Just a Good Little Student”

This theme describes how the children demonstrated receptivity to new learning and responsiveness to instruction. Participating teachers described these children as well-rounded students who made steady progress over the academic year in all areas. Leah’s teacher noted “Leah fits in very well with my classroom expectations for kindergarteners. She would be on the higher end of things”. She reflected on Leah’s progress over the school year and described how Leah distinguished herself as a kindergartener.

I think her major strength is that she can easily take those skills and apply them in a variety of situations, and a variety of learning experiences. She's eager to do well. Her ability to write and revise complex ideas would be an example of her being a step ahead. We have a handful of students who can do that. But again, I wouldn't say it's the majority of the class. You'll see the growth in things like this in all kinds of students, but I wouldn't quite say to this level. I feel like she started off where most people did at the beginning of the year but seeing her transfer skills into independent writing is quite outstanding for her. (Leah, 3rd Teacher Interview, p. 18)

Teachers generally found the children to be very responsive to instruction, noting that these children were able to take concepts or strategies and apply them to novel situations. Isaac’s teacher described Isaac by saying “He will apply what I've asked him to change or a direction I'd like him to go”. Addy’s teacher noted how Addy retains instructions to make progress with her academics.

I feel like she listens to everything that we're teaching and she's now applying those things. Like going back to her writing, she is the one who consistently puts finger spaces between her words, whereas we've still got a handful that you have to remind them every

single time. I feel like she listens to the lessons that are being taught every day and she really internalizes them and when she goes to practice whatever has just been taught, she really is truly practicing it. She's remembered what I've said and now she's implementing it, which is really fun to watch. (Addy, 3rd Teacher Interview, p. 15)

While teachers unanimously indicated that the children met all academic expectations, one area that continually came up was the children's prowess as writers. Teachers described in detail how writing is often the biggest academic challenge of kindergarten because children have a hard time thinking of what to write. However, these children were proficient with both writing to a prompt (i.e.: What did you learn about Abraham Lincoln?) and creative writing (i.e.: If you could build a house, what would go in it?) in part because of their thinking skills. Addy's teacher commented on how Addy compared to her peers in this area.

I'm really proud of her especially in writing because a lot of kids in kindergarten they have a really hard time coming up with what they want to write. Even if I give them a topic, it's still hard for them to come up with what they want to write about that topic without me giving some kind of prompt. Whereas Addy can go and she'll not only remember what we talked about, but she'll be able to put it down on the paper. (Addy, 3rd Teacher Interview, p. 13)

Leah's teacher described a creative writing prompt she uses at the beginning, middle and end of the school year to evaluate the children's progress with writing. She asks the students to write about *a house, a tree and me* and gives the option to write about actual houses and trees or something fictional. She showed me Leah's work comparing the beginning of the school year where she had used drawings and needed substantial help to copy letters with her final product where she drew the items and wrote full sentences about each aspect of the prompt.

At the beginning of the year, there was no writing. And now it's three pages of her sharing her ideas. "The house was a good house, the trees, I loved it. Okay, tree. Me, I love me." And then she's asking questions to show she knows how to use other punctuation. "What do you like? That's a tree. What do you like about you?" Her just being so thoughtful with that. And then her last page said, thinking about herself again, "I lived since 2015." But to see this growth between both work samples, this is all her with no directed writing. It's her sharing her own thoughts. I would just say that shows her growth in that area, but also her major independence and understanding that she can do whatever she puts her mind to. (Leah, 3rd Teacher Interview, p. 17)

While the children all entered kindergarten with a range of knowledge and ability, all made steady gains over their kindergarten year, with teachers and parents expressing confidence that the children were ready for first grade. Addy's teacher commented on Addy's progress over the school year saying "She's just a really good little student. Like I said, she likes to learn, she responds really well to positivity."

Nadine's mother reflected on Nadine's growth over the school year. Nadine was initially placed in a remedial reading group because she entered kindergarten due to her lower levels of letter recognition and subsequent challenges with decoding words in text. Her mother described her lack of concern with the support Nadine received initially, and stated her confidence that Nadine would end the year at grade level in all subjects. She described a conversation she had with Nadine where they reflected on her kindergarten year.

Yeah, it's just been a time of tremendous growth. And I remember her teacher saying that the kiddos enter kindergarten it's like such little babies, which changes so quickly. And now, these mature kids and they've seen so much growth in her. And as part of school,

she was reflecting on the year and how much she's grown, and she was talking about how she learned to count to 100. She learned about the letters. She was really focused on the academic growth. (Nadine, 3rd Parent Interview, p.3)

Isaac's teacher described Isaac by saying "He has a really good foundation for learning, really smart, he's really eager." She went on to describe his accomplishments in kindergarten.

He has met math goals, writing goals, reading goals, and he can express his ideas and form sentences. He's reading at a level 14 right now; we want them to leave kindergarten reading at a level four. I feel like he's leaving kindergarten at a really good time, in a really good place. Really ready to just conquer the world now, truly, and all of his interests and background knowledge and all that he knows he's going to be able to apply more and more easily as he gets older. (Isaac, 3rd Teacher Interview, p. 9)

"I Know I Can Count on Her"

This theme illustrates the children's trustworthiness in working independently and handling change in the classroom. Teachers described the children as responsible students of high character; they were the ones who could be relied upon to work independently and were capable of handling stress and change when the planned routine of the day was disrupted. The children's ability to problem solve through confusion or ask for help from a teacher or peer meant they could complete school work with little supervision or advocate for the circumstances they needed to work independently. Addy's teacher reflected on Addy's assignment to the "independent" worktable.

I can send her to her table to do a task and not have to worry about her. I say, "These are the kids that are going to work with me on the rug today, these are the kids that are going to work with our para at the table, but these are the kids that are going to be

independent," and Addy is usually in the independent category because I know that she can go to her table, and get the job done with minimal distractions. (Addy, 3rd Teacher Interview, p. 12)

Emotional sturdiness was another trait that supported these children's ability to work independently. The children were able to navigate conflict and avoid emotional upset during times of stress and change and were able to use teacher feedback constructively to improve upon their schoolwork. Addy's teacher described how Addy reacted to change and feedback.

I mean, in any given year, kids will handle things differently because they're all different, but I feel like Addy is a kiddo who goes with the flow and if something happens and we have to change our schedule, it is not going to disrupt her. She's like, "Okay," whereas other kids, that really affects them. She also takes criticism well, if I say, "Oh, Addy, the word like is one of our heart words, what are you missing on the end?" And then she will be like, "Oh, yeah." I mean, she doesn't deflate or get angry or anything if you point out something that she forgot or whatever, which is also good. (Addy, 3rd Teacher Interview, p. 18)

Another factor contributing to the competency of these children in enacting their kindergarten role was their ability to articulate their needs. Examples of this include navigating social dilemmas and advocating for their own support for learning. Isaac's teacher described a scenario where Isaac was invited to a play date but did not think he was ready for that experience.

So, another friend has invited him to have a play date, and it's a play date at his grandma and grandpa's, and it's in their pool and Isaac says, "We're not quite ready for that yet. We need to have a couple of play dates at my house first". And he will use words to

explain what's happening exactly in this relationship. He's processing out loud through words. (Isaac, 2nd Teacher Interview, p. 5)

Leah's teacher described a scenario where Leah was initially placed in the back of the classroom and struggled to focus on her work. After noticing Leah staring at her hands, the teacher approached Leah to ask her about her disengagement. Leah was able to say that the classroom felt "too loud" and that she needed a different place to work.

I would say that there are a handful of kids who, by the end of the year, are able to notice and articulate their feelings. It's a higher-level skill, and I wouldn't say a lot of them get to that point where they can articulate, and actually think through what's going on. Anyway, her table spot was much further back in the room, and I put her there. Her description of loud is perfect, where she couldn't tell you exactly what that means, but it just felt loud. And when it's feeling like that for her, you'll see her spinning and straining to think. Leah got put further in the back because I knew I could count on her, but once we identified her learning need, I found her a quieter place to work. (Leah, 2nd Teacher Interview, p. 16)

Finally, the competency of these children across the many different environments related to school performance enabled them to work independently. The children felt comfortable navigating their schools, embraced their newfound responsibilities and leveraged their academic skills to stay focused and productive when given a task to complete. "She's doing great", said Nadine's mom as she described their morning routine before school. "She is very conscientious about having her water bottle every day, having her snack, and having her extra mask. She's very conscientious and responsible".

Isaac's mom also shared a story of how Isaac handled her request to deliver a thank you card to the front office staff, noticing how independent Isaac had become in navigating the school.

There was a time where I needed him to give the front office staff a thank you card. And I was like, "Can you give this to [office worker]?" And he's like, "Well yeah, mom, because I can get my breakfast, and then I can go through the inside school hallways instead of the outside school hallways and I will just do that and give it to her." And I said, "Well, do you know where you're going?" "Oh yeah." That's exactly what he did. He waltzed in and got his breakfast, instead of taking it to the outside door, he went through the school, and he said hi to [office worker] and gave her his card and walked to his classroom like he just owned the joint. (Isaac, 3rd Parent Interview, p. 8)

Part of why these children were reliable workers in the classroom was due to their academic competency and thinking skills. Addy's teacher illustrated this connection by sharing a story of how Addy completed a writing assignment about Abraham Lincoln.

Addy's really good about just being able to come up with her own ideas. If I say, "Today you're going to write about what we learned about Abraham Lincoln." She could go to her table and write all the way down to the bottom of the page things that she learned about Abraham Lincoln with minimal questions. Most kids will need some ideas or help sounding out words, whereas Addy can go and she'll not only remember what we talked about, but she'll be able to put it down on the paper. (Addy, 3rd Teacher Interview, p. 13)

“In-tune with the Class”

This theme focuses on the children's social reciprocity, and how they leveraged social connection to include others and create supportive relationships. The children excelled as classmates and were described by their teachers as well versed in building social connections and

recognizing the needs of others. Leah's teacher commented about Leah saying, "Just being in tune to the things around her, she's kind of a head above the rest."

Teachers also described the children as inclusive of others, and attentive to social details like learning names and recognizing faces. Addy and Isaac provided the strongest examples of this trait. Addy's teacher commented "I feel she's pretty good about including anybody. I've never seen her or heard her exclude anyone." She went on to describe Addy's social connections with her classmates.

I feel like Addy does really well where I've seen some of the other ones, not so much. She's just a happy kiddo and she includes everyone, which is really great. Especially since some of them don't even know all the kids' names in here. Just the fact that she's in tune to that, she knows who people are, she knows how to help them, she recognizes their faces. (Addy, 2nd Teacher Interview, p. 15)

Isaac's teacher described the reactions she observes towards Isaac from the other children in the classroom and shared the efforts he makes to connect with neurodiverse peers.

So other kids feel really welcomed and liked by Isaac and they like him. I think he's just really good at remembering kids' names and making connections and empowering kids. We have three students with autism in our classroom and there's one child in particular who I think he really likes to play with. When they're playing, he wants to share his ideas, and he advocates for the other kids. "This is their idea. Isn't that cool?" (Isaac, 3rd Teacher Interview, p. 28)

Teachers also described the children as helpful, both in a practical sense and through thoughtful interactions. "I feel like without me prompting her or anything, she's very helpful."

Addy's teacher said. She then described the end-of-the-day ritual of returning misplaced items before the children are dismissed.

Like the other day and at end of the day when we're packing up, sometimes things are left in the back of the room, and so I'll hold things up. I heard Addy say, "So and so that's your mitten." If somebody doesn't have a brown crayon, she'll say, "Oh, I have a brown. Here, you can borrow my brown," (Addy, 2nd Teacher Interview, p. 15)

Leah's teacher described a moment where Leah used her creative writing time to compose a thank you letter to both her teacher and paraprofessional. The 2020-2021 school year was hard for many educators, and Leah's teacher was very appreciative that Leah took the time to express her gratitude. (See Figure 6.1.)

This day, without any prompting from anybody else, she decided to write a letter to her teacher. And the thoughtful girl she is decides that she wants to communicate to her teacher words of appreciation. I told her when she brought it up to me how impressed I was. I can tell how much time she spent on making it neat, and easy-to-read. I can see where she erased at a certain point, where there was not a capital letter at the beginning of the sentence; little editing things that she did on her own for punctuation and things. And so, this kind of sums up for me what we want every kid to be able to do. We want them to use their skills for something that serves a purpose. And this is something she did on her own. She thought of the purpose she wanted, and she communicated with her writing. To me, this is just amazing. (Leah, 3rd Teacher Interview, p. 15).

Discussion

The purpose of this qualitative cross-case study was to describe the kindergarten performance of four 5-year-old children following three or more years of play-based learning at a Reggio

Emilia-inspired play-based early childhood center. Parent and teacher participants believed that play-based learning supported these children's performance as kindergarteners. Participants described how these children demonstrated learning receptivity and a willingness to adjust to the many challenges of becoming a kindergartener through flexible thinking, social reciprocity, and enjoyment of challenge and ambiguity. From these developmental competencies, the children built their learning readiness, assimilated to classroom expectations, and enjoyed the process of expanding their prowess with reading, writing, math, and other academic content areas.

These findings align well with existing literature describing how play fosters learning, with the stories of how these children developed as writers being especially salient. Bollinger and Myers (2019) stated that a hyperfocus on written language as the exclusive form of acceptable expression in education is flawed, in that children need to draw upon their emotional fluency, command of narrative language, and ability to apply knowledge to represent their ideas in multiple ways. Encouraging children's engagement with storytelling and self-expression provides them with the confidence and underlying language, memory and attention skills needed to contend with written language when they are ready to do so.

Congruent with play-based education pedagogy, these children were given daily opportunities to express their ideas through artwork, building, storytelling and sketching. They were also immersed in a language-rich environment, encouraged to work collaboratively with peers to resolve conflict, and explore their interests within a supportive learning context. Seemingly, as a result, these children arrived at kindergarten well prepared to conceptualize their ideas and express them for a variety of audiences. When the time came to learn how to write the letters of the alphabet, this seemed to be an extension of a much more complex process that the

children had already mastered in that they could come up with an idea, hold it in their minds, and share it with another.

Slot et al. (2017) described how self-regulation contributes to emotional and metacognitive functioning in the classroom, stating that these skills are best learned through play-based experiences. Immordino-Yang et al. (2019) stated that “brain development and the learning it enables are directly dependent on social-emotional experience” (p. 185). For young children, their ability to think and learn in the classroom are dependent upon their ability to manage their emotions in response to stress and challenge. These children illustrated the relationship between emotional and metacognitive regulation with their remarkable capacity for independent work. Teachers described these children as reliable, trustworthy, and able to work on their own seemingly because they were motivated to advance their learning, monitor their own productivity, and adjust their strategies to produce quality work.

Many factors seemed to contribute to the steady progress these children made over their time in kindergarten. Their orientation towards growth and comfort with challenge allowed them to lean into their kindergarten responsibilities and persist when learning was difficult. Their social skills allowed them to establish relationships with their teachers, administrators, and peers; these relationships provided a source of encouragement and allowed them to expand their perspectives through productive collaborations. This was augmented by their thinking skills which allowed them to understand and apply concepts in novel and varied ways. While the children who were the focus of this study entered kindergarten with a range of academic knowledge, their abundance of thinking, relating and introspection provided smooth passage to sustained learning, personal growth, and academic progress throughout their kindergarten year. As described by Miller and Saenz (2021), when children’s own internal processes for inquiry and discovery are

supported, they make stronger advances in academic knowledge. When children are given agency to construct knowledge and explore concepts in a social context, they are more likely to acquire deeper understandings and novel applications of concepts.

Limitations

The findings from this study include themes constructed from the collective perceptions of the mothers and teachers of the four children who were the focus of this study. Congruent with cross-case study and qualitative research paradigms, I took an in-depth look at a small number of participants in enacting this study. The nature of qualitative research is to describe experience within the natural context, so caution should be used in extrapolating the findings broadly (Yin, 2018). Participants reported that the children were well-prepared for kindergarten following three or more years of play-based learning, but there are many influences on children's early development, and we cannot definitively say how these findings would compare with children entering kindergarten from a non-play-based setting.

Conclusions

Building on prior studies describing how children are prepared for kindergarten through play-based early childhood education (Fyffe et al., 2022), this manuscript illustrates how children acclimate to their role as kindergarteners and become productive citizens of their school community. Participants believed that play-based learning was foundational to this process and propagated the children's positive approaches to learning, self-management, and social relationships. Early childhood professionals should advocate for pedagogical practices, curricular foci and evaluation metrics that are aligned with the science of child development and the wisdom of Vygotsky, Elkonin, Dewey, and others who wrote that in order for children to learn, they must be allowed to play.

Table 6.1*Descriptors and Characteristics of Participant Clusters (code names used)*

Child Pseudonym	Addy	Isaac	Leah	Nadine
Gender	Female	Male	Female	Female
Age at initial interview	5 years, 7 months	6 years, 1 month	5 years, 6 months	5 years, 6 months
Birth order	2 nd of two siblings	1st of two siblings	2 nd of two siblings	2 nd of two siblings
Parental relationship	Married	Married	Married	Married
Parental employment	Employed	Employed	Employed	Employed
Teacher's years of experience	28 years	14 years	11 years	unknown
Curricular focus of school	Core Knowledge	Science, Technology, Engineering and Math	International Baccalaureate	International Baccalaureate

Table 6.2*Sampling of Interview Protocol Questions by Participant Group*

Interview Foci	Sample Questions
Understand and describe the child's kindergarten performance	<i>What do you think is going well for {Child} in kindergarten? *</i> <i>Can you share a sample of {Child}'s schoolwork, and walk me through how this illustrates {Child} as a learner? **</i> <i>Walk me through the changes and growth you have seen in {Child} this past year. How would you summarize his/her experiences and accomplishments? ***</i>

*Asked of all participants

**Asked of teachers only

***Asked of parents only

Table 6.3*Kindergarten Performance Theme Definitions, Descriptions, and Illustrations*

Theme	Definition	Description	Illustrative Quotes
<i>Get Your Brain Thinking</i>	Desire for challenge and advancing their own learning; investment in learning or desire to be productive.	Quotes or observations demonstrating the child's drive to learn more and be challenged.	<i>I think she's really loving the academic side and she's really excited to learn about letters and numbers. The other day, she told me, "I just can't stop thinking about math." (Nadine, 2nd Parent Interview, p. 8)</i>
<i>I know I can count on her</i>	Morality, self-management, trustworthiness. Ability to work independently and handle stress or change.	Stories or observations of the child acting with integrity, handling disruption, being reliable, or working independently.	<i>I think probably because she is one to follow directions. I could probably give Addy five step direction and she could follow through on it with flying colors. (Addy, 2nd Teacher Interview, p. 12)</i>
<i>Just a good little student</i>	Learning receptivity, application of knowledge, responsive to instruction, or overall well-rounded student.	Stories or observations of the child meeting academic expectations and responding to instruction.	<i>I think her major strength is that she can easily take those skills and apply them in a variety of situations, and a variety of learning experiences. (Leah, 3rd Teacher Interview, p. 17)</i>
<i>In-tune with the class</i>	Social connection, in-tune with others, seeks opportunities for altruism, inclusive of others.	Stories or observations where the child initiates an action to better others or build relations and connections with others.	<i>When Isaac talks, he shares a lot of experiences and right away picked up on names of all the kids and wanted to talk with them. (Isaac, 2nd Teacher Interview, p. 4)</i>

Table 6.4.

I know I can count on her: Within-Case Analysis to Cross-Case Analysis

<p>Phase 1 Axial Code Kindergarten Performance</p>	<p>Phase 2 Probing Question How did participants describe these children's performance as kindergarteners?</p>	<p>Phase 3 Data Groupings Descriptive patterns identified across the cases; data grouped along these conceptual clusters</p>	<p>Phase 4 Cross-Case Themes Get your brain thinking. Just a good little student. I know I can count on her. In-tune with the class.</p>
<p>Theme Construction: Data Excerpt Samples for <i>I know I can count on her</i></p>			
<p><i>I can send her to her table to do a task and not have to worry about her. We always call it independent. I say, "These are the kids that are going to work with me on the rug today, these are the kids that are going to work with our para and these are the kids that are going to be independent," and Addy is usually in the independent category because I know that she can go to her table, get the job done with minimal distractions. (Addy, 3rd Teacher Interview, p. 12)</i></p>	<p><i>She's doing great. She is very conscientious about having her water bottle every day, having her snack, having her extra mask...she's very conscientious and responsible.</i> (Nadine, 2nd Parent Interview, p. 2)</p>	<p><i>I noticed when she's working and it's quiet, if you walk around and look, you'll just see her progress with writing or with math, with her ability to focus. So she's making huge growth. My biggest hope would be that she continues to make that growth, continues to feel more confident and with that, success.</i> (Leah, 2nd Teacher Interview, p. 18)</p>	<p><i>So other kids feel really welcomed and liked by Isaac and they like him. Isaac understands how to play with friends and wanting to just go have fun at recess. And he will use words to explain what's happening exactly in his relationships. (Isaac, 2nd Teacher Interview, p. 3)</i></p>

Figure 6.1

My names , My teether
her name . I love her,
Her usisidit named
I love her. you cant blev how
amasing My teetcher's is.
sam thing with
Shes The best teetcher
I Love you to the moon
and back

Figure 6.1: Leah writes a letter to her teacher and teacher assistant expressing her gratitude.

CHAPTER SEVEN: CONCLUSION AND DISCUSSION

Occupational therapists have considered the relationship between time use, health, and well-being (Meyer, 1922) since the profession began in 1918. Children today are experiencing significant changes in their patterns of time use, given the rise of attendance in group care settings at earlier ages and the increase in academic expectations in earlier grades (Pramling-Samuelsson & Johansson, 2006). Furthermore, controversy exists today as to the value of play-based experiences to prepare children for successful acclimation to formal schooling and beyond. I entered this doctoral program in large part because I wanted to better inform myself and my profession as to the value of play, the primary occupation at this age, during the early childhood years.

In the following sections, I reflect upon what I have learned about the relationship between play and learning based on the findings from my dissertation. I then discuss the implication of my research on occupational therapy practice and situate my findings within an occupation and rehabilitation science framework. Finally, I reflect upon how my dissertation journey has changed my professional lens as an occupational therapy practitioner, educator, and researcher; and describe the future directions of my research as I bring my dissertation to a conclusion.

Lessons Learned: Reflections on the Play and Learning Relationship

In contemplating what I have learned about the play and learning relationship, I first revisited my research aims and questions and reflected on what I had discovered about parent and teacher perspectives on school readiness and kindergarten transition. I noticed that parent participants spoke at great length about wanting their children to have an early education experience that allowed them to explore and discover at their own pace. Parents expressed appreciation for the autonomy and joyfulness their children experienced through play-based learning, and seemed

confident that the academic content would come when their children were developmentally ready. Teacher participants, though they had vastly different personalities and taught at schools with very different curricular focus, valued relationships with children and teaching them to love the process of learning in kindergarten. Teachers described how “every child has a hill to climb” in kindergarten. The children who arrive with higher levels of reading and math may struggle with making friends on the playground, for example. The teachers seemed committed to fostering the growth of every child in all aspects of their kindergartener role, and shared with me that children often finish kindergarten at very similar places academically even when they arrive with a wide variance in their competencies.

I then went back through the findings from my three main constructs of school readiness, everyday adaptability, and kindergarten performance in search of common themes. What I found was that these children developed high-level competencies within three major developmental areas: language, cognition, and social relationships. They leveraged these developmental competencies to strengthen three major predictors of school readiness: social relationships, positive approaches to learning, and self-management. Competency within these areas allowed them to flourish in multiple ways. They used their language to form relationships which gave rise to self-advocacy and nurturing from others. They used their cognition to evolve into nimble and responsive learners, capable of benefiting from group instruction across multiple learning formats and classroom contexts. They used their social prowess to guide their interactions and engagement in the classroom by effectively responding to social expectations and classroom instruction.

But the bigger question for me was *why*. What was it about these children’s early childhood experiences that gave rise to school readiness, everyday adaptability, and kindergarten

performance? To answer this question, I focused on what I know about the process of play and how children acquire mastery over time. In the following sections, I reflect upon the relationship between child development, school readiness competencies and the novelty encountered during play.

The Role of Play in Fostering Competent and Responsive Children

I have come to believe that novelty is an important feature of play that promotes health and development for young children. Novelty exposes children to recurring states of cognitive and emotional dissonance, requiring children to continually adapt their thought processes, emotional states, and personal desires for the greater benefit of continuing with play. Children also experience play as sequential exposure to trial and error. Children create, modify, adapt, and enforce rules and play schemas, thus becoming immersed in discovering new possibilities, co-constructing knowledge, and working through low-stakes stress. Play is naturally in line with the child's developmental stage and readiness, therefore the challenges encountered while playing are likely manageable for the child to navigate and master. The children in this study were described as embracing challenge and engaging in learning through many different instructional formats, and this may be due to their positive experiences navigating challenge through play. These children entered kindergarten knowing that change and challenge could be overcome, and that learning was a process of exploring a winding and obscure path. When they encountered obstacles and disruption during the kindergarten year, they drew upon the coping mechanisms they had already developed to find ways through adversity with a positive mindset.

Play also requires a certain fluidity of thought, thus rewarding and fostering imagination and creativity. Flexible thinking is a key component of positive approaches to learning, as children enjoy thinking through new concepts and applying these ideas in unique and varied ways. The

powerful combination of embracing challenge alongside creative problem solving laid the foundation for these children to evolve into nimble and responsive learners in kindergarten.

Furthermore, the social reciprocity required to sustain play interactions was instrumental in honing the language and social skills of these children. They arrived at kindergarten well versed in reading social situations and adapting their interactions and demeanor to align with social norms. They were accustomed to using their voice to advocate for themselves and others. Play also requires children, at times, to function at the height of their ability. They must use the skills they have but also generate new skills and responses as they are exposed to more complex play scenarios and players with different skills and ideas. Vygotsky (1978) described children in play as *acting beyond their age and daily behavior*. Play provides a context where children both lead and follow: two contexts that require heightened social reciprocity, thought, and language.

Finally, recurring encounters with play may have leveraged these children's unconstrained classroom skills. While these children all entered kindergarten with various mastery of the constrained academic skills, they all excelled in the unconstrained aspects of kindergarten performance. These children all eventually mastered basic academic knowledge, but it was their ability to pursue mastery that allowed them to make continuous progress and enjoy the challenge of learning. When children are comfortable with the learning mindset and enjoy the process of gaining new knowledge and skills, they are much more likely to want to pursue challenges and use their knowledge to serve a purpose. Learning receptivity and mindset seems much more fertile in fostering children's success in kindergarten over the long run.

Social Relationships, Approaches to Learning, and Self-Management

I came into my dissertation interested in how the unconstrained academic skills of social relationships, approaches to learning and self-management influenced and contributed to

children's academic learning readiness. But I could only see these factors as a reflection of individual children. I now see how we as occupational therapists can contribute to creating learning environments that promote these critical attributes by supporting children's access to play and articulating the ways in which play develops learning readiness. Occupational therapists must extend our profession's reach beyond supporting individual children and consider how the classroom environment fosters young children's competency with learning. By taking a more population-focused, place-based approach to school-based interventions, occupational therapists can impact children in both reactionary and preventative ways. We can respond to children's disability by co-creating classrooms that are less stressful and more inclusive of diverse learners. We can also promote children's participation and engagement in learning by advocating for developmentally sound instructional practices that offer children access to learning opportunities. When children are brimming with learning readiness and receptivity, they can engage in group learning and the skills and knowledge associated with that will solidify and flourish.

Specific to the children in my study, the teachers all described them as excellent writers because they were excellent thinkers. While OTs often emphasize the fine and visual motor aspect of writing, these teachers agreed that thinking of what to write was the hardest part for kindergarteners. I think this is an important example of how early development gives rise to learning readiness which gives rise to kindergarten competency. These children had the language skills to understand and create stories. They had the thinking skills to hold these stories in their minds while they executed the task of writing them on paper. They had the imagination to create unique tales but also the discipline to write to a specific prompt from their teacher. They were also able to focus for the duration of the task, avoiding distractions and remaining productive.

They had the relational skills to write to a specific audience. For example, Leah chose to write a gratitude letter to her teacher versus Isaac creating artwork at home for his classmates.

All the teachers told me that writing instruction was significantly altered during this Covid-affected school year; most deferred writing instruction until in-person learning resumed halfway through the school year and all reported challenges with the hand-over-hand feedback and coaching normally used. But by the end of the school year, the teachers said that their classes were on benchmark with writing and that they had no significant worries about the cohort's ability to perform well with writing in first grade. I think the story of the children's writing illustrates how occupations arise from within the social and physical context and are integrated to produce intentional and meaningful work (Seelman, 2000).

I was also surprised at the pervasive influence social language had on all aspects of the children's kindergarten experience. As an occupational therapist, I was trained to view language as the domain of speech-language pathologists, and outside of cursory observations of children's intelligibility, I really have not given language much thought. Through my research, I have learned the foundational role language plays in fostering children's social relationships, executive functioning, and self-regulation, and this has made me curious to learn more about language development and its influence on children's development and well-being.

While I designed this study with the hope that participating children would attend kindergarten with different curricular foci, I found curriculum to be a negligible influence on children's kindergarten experiences. All teachers reported significant adjustments to their normal scope and sequence of instruction due to remote learning, so this may have been an effect of teacher's pandemic-related adjustments, but it was interesting to note how seldom curriculum was mentioned during teacher interviews.

Implications for Occupational Therapy Practice and Research

Occupational therapists working in public schools must demonstrate the educational relevance of their services, which requires a deep understanding of the educational context and competencies that allow children to thrive in the classroom. While occupational therapists work as part of a multidisciplinary educational team to optimize children's engagement at school, there has been little contribution to the educational field from OT describing school performance from an OT lens. A significant implication of this dissertation is that the constructs of school readiness, everyday adaptability and kindergarten performance are presented from the perspective of an occupational therapist. My dissertation focused on the interactions among children and their school environments, with an emphasis on how parents and teachers perceived the impact of play-based learning on these four children's kindergarten experience.

By using cross-case study as my research methodology, I was able to deepen my understanding of these phenomena and describe the collective experiences of a small group of children entering kindergarten after play-based education. The use of qualitative methods allowed me to construct my findings from within these children's very broad experiences. This allowed me to fully answer my research questions related to parent and teacher perspectives and kindergarten transition and performance.

But the open-ended and exploratory nature of my research also left many unanswered questions related to the extent of play-based learning's impact on the children participating in this study. For example, I noticed that the families I interviewed were very invested and reflective when it came to their parenting decisions. They involved their children in conversation and listened to the needs and concerns their children brought forward. Having access to strong parental support certainly influenced how these children adapted to their kindergarten role and

navigated the pandemic. I also noticed that teachers reported a great deal of concern with the children in their classrooms during this pandemic affected year. While they certainly expressed many positive things about the children in this study, it is possible that the stress and regression they reported with the kindergarten cohort made these children look especially competent. While it was not my intent to uncover or compare various influences on the children's kindergarten year, I do believe the extent to which these children had to adapt and overcome the challenges presented by the pandemic strongly influenced the perceptions of the parent and teacher participants.

Another significant contribution of my dissertation is the expanded view of school readiness and kindergarten performance my work brings to the profession. Current practice in occupational therapy focuses on school readiness and kindergarten performance on movement and adaptive skills for children with disabilities or developmental delays. But language within the No Child Left Behind and Every Student Succeeds Act are pushing occupational therapists in the direction of prevention and wellness rather than reactionary to known disabling conditions. This requires OT practitioners to be well-versed in understanding the factors that best predict school success in all children, not just those with individual education plans.

Children perform well in kindergarten when they arrive with the foundational readiness that allows them to acclimate to the many demands of the kindergarten role. While the academic side of kindergarten performance is often the most visible and emphasized aspect of kindergarten transition, understanding the ways in which children acclimate to a group learning context, develop positive approaches to learning and engage in self-management are foundational aspects of learning receptivity and social connection that foster a successful kindergarten year. Increasing OT knowledge of the mechanisms that foster school success for typical children

allows OTs to better advocate for best practices in learning readiness. Understanding how children with disabilities experience these three readiness factors was beyond the scope of this dissertation but would be important to understand in future studies.

An important element of this dissertation's contribution to occupational therapy practice is the findings related to everyday adaptability and the development of self-regulation. Occupational therapists have struggled to agree on the definition of self-regulation, and most OT scholarship and practice in this area centers on the sensory aspect of self-regulation (Martini et al., 2016). Related to this, most OTs address self-regulation in the context of children who experience dysregulation based on the sensory aspects of their environment. To my knowledge, this article, will be the first within occupational therapy to address self-regulation from a typical development perspective, and I hope the concepts of manageable stress and low-stakes dysregulation add to the existing knowledge within OT regarding supporting children's self-regulation and thus adaptability to everyday stress.

Limitations

Qualitative research explores participants perspectives through in-depth and rich accounts of phenomenon unfolding within their natural contexts (Yin, 2018). Congruent with cross-case study design, the findings from this dissertation represent the connections parent and teacher participants made between play-based learning and the child's kindergarten experience and how they described the child's kindergarten year overall. It is beyond the scope of this dissertation to examine casual relationships, generalize beyond the participants of this study, or account for the multitude of influences on children's development and education.

However, it is worth noting that the early childhood education experiences of the children were influenced by the play-based learning pedagogy of their school and the Reggio-Emilia-

inspired philosophy. The Reggio Emilia-inspired philosophy of early childhood education emphasizes artistic expression, child-led exploration, engaging environments and collaborative relationships to promote children's curiosity and joyfulness with learning. Key principles of the Reggio-Emilia philosophy include the image of the child as capable and competent, the role of parents and teachers in partnering with children to explore their interests, and rights of children to be respected and heard in society (McNally & Slutsky, 2018). As the guiding philosophy of the school, parents were inevitably exposed to these principles and their children were educated with these ideals in mind. Two of the parents explicitly mentioned that the Reggio-Emilia-inspired philosophy of the school positively influenced their parenting practices. Given that the Reggio-Emilia philosophy and play-based learning emphasize children's autonomy, collaborations, and agency, the extent to which tenets of play-based learning and Reggio-Emilia philosophy influenced parenting practices and children's self-concept is unclear.

Finally, children participating in this study had many advantages outside of their early childhood education experience that likely contributed to their overall positive adjustment to the pandemic and kindergarten transition. The children's parents intentionally supported them by creating home learning spaces, engaging extended family and community members to supervise remote learning, and accessing outdoor leisure and recreation so the children had a sense of joyfulness during the pandemic shutdowns. For example, Leah's mother organized a virtual birthday party for Leah so that she felt loved and recognized on her birthday. All parents described how they listened to their children and adjusted the family's routines based on what the children needed to cope with school and the pandemic. This suggests a sense of connection and emotional safety was provided at home for the children, which would have offered protection against maladjustment.

The children's teachers and school district offered laptop computers to each student and trained teachers in instructional practices for remote learning. All teachers described how they were adjusting classroom expectations and instructional practices for online learning, suggesting a sense of responsiveness to the needs of children and their families. The children lived in a community with access to a range of outdoor activities that remained open throughout the pandemic, and families involved in this study reported taking advantage of this by offering activities such as skiing and horseback riding to their children. Collectively, the children were well supported by compassionate parents, thoughtful educators, and an outdoor-focused community as well as a high-quality early childhood education experience, and all these factors contributed in some way to their positive adjustment and success in school.

Alignment Within the Occupation and Rehabilitation Science Framework

Children as occupational beings, everyday routines as the context for integrated development and the role of the environment in enabling health has been foundational in shaping my identity as a researcher and expanding my practitioner and educator lenses. I can now articulate how these principles relate to the construct of learning readiness put forth in my dissertation which includes productive approaches to learning, self-management, and positive social relationships. I summarize my knowledge of occupation and rehabilitation science in the graphic below, then explain the relationships I see among the major concepts (see Figure 7.1).

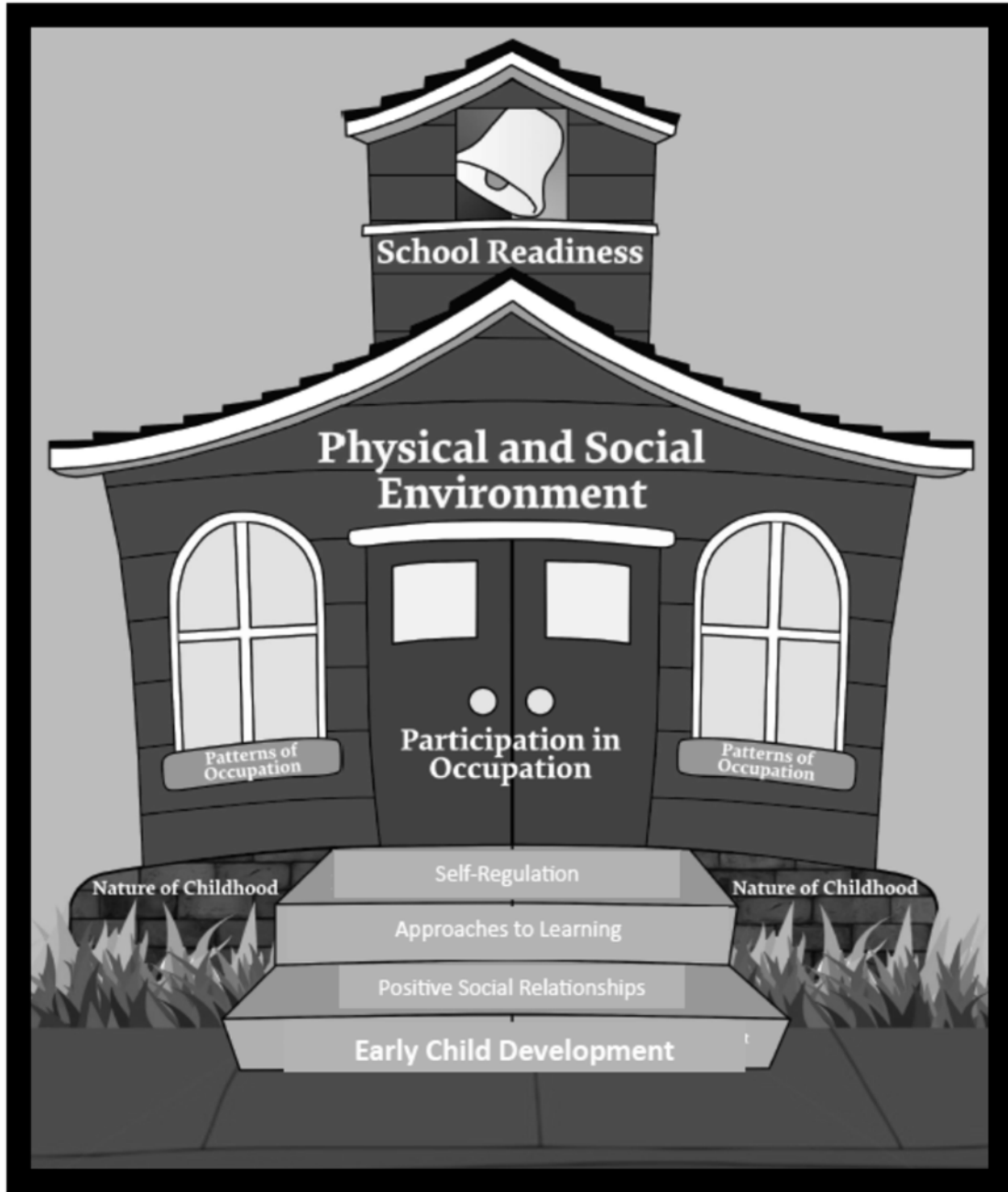


Figure 7.1 Graphic illustration of the intersection of rehabilitation science, occupational science, and early childhood.

In bringing together concepts from rehabilitation and occupational science, I represent the inner drive or nature of children to engage in occupation as the foundation of the schoolhouse structure, as inner drive is less visible to the observer yet provides the foundational structure that motivates children to engage in activity (Hasselkus & Dickie, 2021; Meyer, 1922). Early child

development and subsequent learning dispositions are represented as the stairs, because robust, integrated early child development eases children's access to participation in meaningful activity (Humphry & Wakeford, 2006). Time use and patterns of occupational engagement are shown as windows, because how children spend their time is the most visible manifestation of meaning and motivation, thus the observe can gain a glimpse into the child's interests and inner self (Hasselkus & Dickie, 2021; Meyer, 1922). Participation is represented as the door of the schoolhouse, because choosing to participate provides entry to the offerings of the environment (Law, 2002; Pierce, 2009). I illustrate the environment as the schoolhouse walls because this is the feature that provides connection and structure to all the related elements. However, not all walls are constructed of the same materials, and because children cannot experience that which the environment does not offer, the make-up of the environment is a critical driver or suppressor of health and wellness (Pierce, 2009; Yerxa, 1990).

Children's drive to engage in meaningful and developmentally appropriate occupations represents the concept of *children as occupational beings* from their earliest life experiences. Through engagement in play-based learning at the ECC, these children came to understand their interests and identities through child-led exploration that provided them with opportunities for self-discovery. Because the children had agency in how they engaged and interacted in the classroom, these children found joy and satisfaction in pursuing their interests and constructing knowledge; this in turn promoted positive approaches to learning. Participation in learning at the ECC was valued, and this allowed children to challenge themselves as they were ready. Within this context of manageable stress, these children developed a positive view of challenge and, over time, increasingly complex ways of understanding their world and themselves.

The roles of both the physical and social environment are significant in early childhood and prove to be substantial contributors to children's preparedness to succeed in school. Environments can be enabling or disabling, and I have come to understand how early childhood practices and foci produce these circumstances over the course of my dissertation work. The play-based environment these children experienced was enabling for them. The center offered children opportunities for exploration and discovery in a positive peer context, and this gave the children a high degree of agency in constructing knowledge and pursuing their interests. Their play-based environment emphasized social language and reciprocity which created fertile ground for children to acquire and refine their ways of relating to others. Through play-based learning, the children encountered novelty and creativity; this may have expanded the children's thinking and relating skills and allowed them to develop complex schemas for collaborating effectively in a group context. Given that productive approaches to learning, self-management and positive social relationships are associated with long-term academic success and emphasized in early childhood education (Goodrich et al., 2015), it did not surprise me that the children who were the focus of this study became excellent kindergartners.

Positive social relationships are fostered through play-based learning and these relationships are essential for children to thrive at school. Vogt et al. (2018) stated that the role of the teacher during play-based instruction is to carefully observe the child's own learning processes and scaffold their prompts and cues to augment what children are discovering on their own. The outcome of this kind of interaction is that children see teachers as a supportive resource and partner in learning. Positive social relationships are, in part, the outcome of carefully designed teacher-child interactions and classrooms that encourage collaboration and exploration, as these children experienced at the ECC. When children have positive social relationships, they have

access to new perspectives, resources for managing stress, and a curriculum that is both accessible and of interest. Interactions that encourage perspective taking and consideration of growing the child's own inquiry practices are formative in shaping children who are excited and capable of learning in a variety of contexts, as I saw with these four children who were successful at kindergartens offering three different curricular foci. A major component of learning readiness is the ability to enter kindergarten and quickly adapt to new social dynamics and relationships.

Play provides children with critical practice in sharing, negotiating, self-advocacy, and problem-solving; these traits allow children to assimilate to the social norms of group learning and build warm relationships with their teachers and peers (Ginsburg, 2007). Play-based learning allows children to develop and test theories and make new discoveries, thus expanding their capacity for creativity and deep conceptual understanding of the concepts they are studying (Fleer, 2011; Sim & Xu, 2017). Children develop their early aptitudes with core academic subjects by exploring the foundations of writing, math, and science through play-based learning. When early childhood education practices focus on the process of learning through discovery and exploration, young children are more likely to advance their academic skills as they are developmentally ready. As such, children build confidence and mastery in their student role, may pave the way for a successful kindergarten experience (Bollinger & Myers, 2019; Miller & Saenz, 2021; Vogt et al., 2018).

School readiness transcends knowledge acquisition alone, early childhood education practices must foster the social and intellectual abilities of children as well as their academic skills and knowledge. Zosh et al. (2017) stated that "content only serves children as far as they can apply and build on it...attaining key content and facts is important for school and life, but

children also need a deep conceptual understanding that allows them to connect concepts and skills, apply their knowledge to different situations and spark new ideas” (p. 5). When children are well prepared for school, they arrive at kindergarten ready to learn, perform well as a classmate and learner and adapt to the everyday stressors of acclimating to their new student role.

Reflections as an Occupational Therapy Practitioner, Educator and Researcher

When I began this process, my intention was to position myself so that I could advocate for the presence of play in the lives of children. Over the course of this journey, I have come to understand how play prepares children to enter kindergarten as a major life transition. I can describe how play facilitates the everyday adaptability of children thus allowing them to embrace challenges and overcome adversity. I also understand and can describe how play allows children to perform as kindergartners and excel as classmates and learners. And because of this process, I hope to be able to articulate to parents, educators, and stakeholders the necessity of play in the everyday lives of children both at home and at school. I hope that the publications presumably arising from this work will help occupational therapists become more confident and informed as to why play is an important occupation of early childhood.

Finally, I want to describe why I think an occupational therapist belongs in research informing educational practices and pedagogy. Occupational therapists are one of the professions mandated in public schools that transcends grades and classrooms. We see the effect of classroom experiences on children over time because we follow them over their entire education course. Occupational therapists have a broad lens of how children function across the different learning environments and aspects of the student role. With educational reforms mandating that OTs provide specialized instructional support to general populations of students, there is a need

for research within the profession that contributes broadly to the knowledge base of educational practices. As a researcher, I have a responsibility to contribute to the literature about effective education pedagogy when my profession is tasked with providing expert advice on the subject.

As an occupational therapy practitioner, I want to feel confident that my involvement with young children is grounded in best practice. I want to incorporate narrative language and storytelling, along with more traditional occupational therapy techniques such as fine and visual motor skills, into my work with young children to optimize their learning readiness and performance at school. Clements and Wright (2022) state that young children need to understand the core concepts, methods of inquiry, and tools of learning within academic content areas during the early childhood years. While early childhood educators have primary expertise in delivering academic content and implanting effective pedagogy, occupational therapists must be fluent in content fundamentals and pedagogical approaches to provide educationally relevant support in educational contexts. Occupational therapists therefore have a responsibility to understand the ways in which young children learn so that occupational therapy support serves to advance young children's engagement and competency as learners.

As an educator, I hope to guide future occupational therapy practitioners in effective school-based practices and empower them to advocate for play with passion and evidence. I hope that the findings of my dissertation are the first small step in this direction.

Concluding Remarks and Future Direction of My Research

As I bring my dissertation to a conclusion, I look forward to using my knowledge to further my efforts at conducting meaningful research that will directly impact my profession and most importantly the lives of children. It is difficult to quantify the many ways that this process has changed me. In all honesty, I do not think I fully comprehend the extent of the transformation

myself, other than I know that I am a different person than I was on March 10, 2017, when I received my formal acceptance into this PhD program. But I do know that I can now do things that I could not have done prior to this experience, and maybe for now that it the best insight I can expect.

I see myself remaining engaged in early childhood research and practice as I transition into post-PhD life. I want to use my knowledge of early childhood education and child development to impact how occupational therapists and public policy makers support young children through enabling environments and access to supportive services. I am committed to the ideas of health promotion and enablement through inclusive classroom design and practices. I want to translate this into future work with children attending early childhood centers that have fewer resources than the center I partnered with for my dissertation. For me, the next step in advancing my research is to identify centers serving children from lower-income families who are looking to improve upon their pedagogical practices and capacity to support the diverse needs of children and families. I want to partner with these agencies to design research and programming responsive to the needs of their children, families, teachers, and administrators and situated within their own unique organizational culture.

I also want to bring my research into the educational policy discussion by seeking positions that give me access to decision-makers in the early childhood arena. My dissertation work has taught me that educational policy is a primary reason for the decline of play in early childhood classrooms. Given the emergence of a centralized Department of Early Childhood charged with overseeing the development of universal pre-kindergarten in the State of Colorado, there is significant opportunity to influence how these programs are designed and implemented. I am currently partnering with the Larimer County Early Childhood Council to develop a training

manual for occupational therapists who want to work in early childhood settings. This manual includes instructional modules for implementing play-based learning, Reggio-Emilia-inspired philosophy, health promotion through inclusive pedagogy and early identification of developmental challenges, and best practices in partnering with educators.

I am also working with the Occupational Therapy Association of Colorado to understand how funding streams for both early intervention and preschool special education can be expanded to include children enrolled at private early childhood education centers. Under our current system, only children enrolled in early childhood programs funded by the Federal government, such as Head Start, or State government, such as district preschools, have access to an occupational therapist at their school. Private early childhood education centers, which are tuition based and operate as either a for-profit or nonprofit business, do not routinely hire occupational therapists. Children attending these centers can access developmental support, including occupational therapy, through Part C Early Intervention or via private health insurance.

While government-funded schools provide specialized developmental support and access to occupational therapy, the limited hours of operation within these centers create a barrier for families needing full time childcare. Providing access to an occupational therapist at every early childhood education center eliminates this disparity and creates pathways for all children and early childhood educators to have access to an occupational therapist during the early childhood years. More importantly, when occupational therapists are embedded within early childhood education centers, they are positioned to observe children's development over time and respond to developmental concerns as they arise.

Souto-Manning (2017) wrote that play has become a privilege of the middle and upper class, in that children from lower income families attending government-funded centers are much more

likely to encounter curriculum and pedagogical practices centered on standardized learning and behavior management than their more affluent peers. I have spent much time reflecting on her writings and wondering if the many disparities we see in society today begin with children's first exposure to school. While the scope of my dissertation was to describe how play-based learning supported four children during kindergarten, I think the lessons I have learned about the power of play-based learning could go far in supporting the success of children in early childhood education from many different backgrounds. I want to use my knowledge to serve a purpose, and the purpose I choose is to continue to advocate for play in the lives of young children through experiences with play-based learning.

REFERENCES

- Allen. (2017). *The transatlantic kindergarten: Education and women's movements in Germany and the United States*. Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780190274412.001.0001>
- American Academy of Pediatrics Council on Early Childhood and Council on School Health. (2016). The pediatrician's role in optimizing school readiness. *Pediatrics*, 138(3), 1-7.
- American Academy of Pediatrics Council on Early Childhood and Council on School Health. (2016). The pediatrician's role in optimizing school readiness. *Pediatrics*: 138(3).
- American Occupational Therapy Association (2008). AOTA's societal statement on play.
- American Occupational Therapy Association. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy*, 68(Suppl. 1), S1-S48.
- Anaby, Law, M., Coster, W., Bedell, G., Khetani, M., Avery, L., & Teplicky, R. (2014). The mediating role of the environment in explaining participation of children and youth with and without disabilities across home, school, and community. *Archives of Physical Medicine and Rehabilitation*, 95(5), 908–917. <https://doi.org/10.1016/j.apmr.2014.01.005>
- Barbarin, O. A., Early, D., Clifford, R., Bryant, D., Frome, P., Burchinal, M. & Pianta, R. (2008). Parental conceptions of school readiness: Relation to ethnicity, socioeconomic status, and children's skills. *Early Education and Development*, 19, 671-701.
- Bassok, D., Latham, S. & Rorem, A. (2016). Is kindergarten the new first grade? *AERA Open*, 1 (4), 1-31.

- Belfield, & Garcia, E. (2014). Parental notions of school readiness: How have they changed and has preschool made a difference? *The Journal of Educational Research*, 107(2), 138–151. <https://doi.org/10.1080/00220671.2012.753863>
- Bierman, K. L., Welsh, J. A., Heinrichs, B. S., Nix, R. L., & Mathis, E. T. (2015). Helping head start parents promote their children’s kindergarten adjustment: The research-based developmentally informed parent program. *Child Development*, 86, 1877-1891. DOI: 10.1111/cdev.12448
- Bodrova, B. & Leong, D. (2015). Vygotskian and post-Vygotskain views on children’s play. *American Journal of Play*, 7 (3), 371-388.
- Bodrova, E., Germeroth, C. & Leong, D. (2013). Play and Self-Regulation: Lessons from Vygotsky. *American Journal of Play*, 6(1), 111–123.
- Bollinger, C. M. & Myers, J. K. (2019). Young Children’s Writing in Play-Based Classrooms. *Early Childhood Education Journal*, 48(2), 233–242. <https://doi.org/10.1007/s10643-019-00990-0>
- Braveman, B. (2016). Health policy perspectives: Population health and occupational therapy. *American Journal of Occupational Therapy*, 70, 7001090010.
- Breathnach, H., O’Gorman, L., & Danby, S. (2016). ‘Well it depends on what you’d call play’: Parent perspectives on play in Queensland’s preparatory year. *Australasian Journal of Early Childhood*, 41(2), 77–84. <https://doi.org/10.1177/183693911604100211>
- Brown, C. E. (2018). Ecological models in occupational therapy. In Schell, B.A.B. & Gillen, G. (Eds.), *Willard & Spackman’s Occupational Therapy (13th Ed)* (622-632). Philadelphia: Lippincott Williams & Wilkins.

- Bundy, A. (1993). Assessment of play and leisure - delineation of the problem. *American Journal of Occupational Therapy*, 47(3), 217–222.
- Bundy, A. (2010). Children at Play. Bundy, A. & Lane, S. (Eds.). In *Kids Can Be Kids: A Childhood Occupations Approach*. (pp. 28-43). Philadelphia: F. A. Davis.
- Burchinal, M., Howes, C., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Predicting child outcomes at the end of kindergarten from quality pre-kindergarten teacher-child interactions and instruction. *Applied Developmental Science*, 12 (3), 140-153.
- Casey, B. M., Andrews, N., Schindler, H., Kersch, J. E., Samper, A., & Copley, J. (2008). The development of spatial skills through interventions involving block building activities. *Cognition and Instruction*, 26, 269-309. DOI:10.1080/07370000802177177
- Cavanaugh, Clemence, K. J., Teale, M. M., Rule, A. C., & Montgomery, S. E. (2017). Kindergarten scores, storytelling, executive function, and motivation improved through literacy-rich guided play. *Early Childhood Education Journal*, 45(6), 831–843.
<https://doi.org/10.1007/s10643-016-0832-8>
- Clements, D. and Wright, T. (2022). Teaching content in early childhood education. In *National Association for the Education of Young Children's Developmentally appropriate practice in early childhood programs serving children birth through age 8*, 4th edition, pp. 63-80.
- Cohrssen, C., & Niklas, F. (2019). Using mathematics games in preschool settings to support the development of children's numeracy skills. *International Journal of Early Years Education*, 27, 322-339. DOI: 10.1080/09669760.2019.1629882

- Colliver, & Fleeer, M. (2016). "I already know what I learned": Young children's perspectives on learning through play. *Early Child Development and Care*, 186(10), 1559–1570.
<https://doi.org/10.1080/03004430.2015.1111880>
- Colorado Department of Education (2016). Kindergarten school readiness guide to implementation and best practices. Retrieved from cde.state.colorado.edu/schoolreadines.
- Conner, J., Kelly-Vance, L., Ryalls, B., & Freihe, M. (2014). A play and language intervention for two-year-old children: Implications for improving play skills and language. *Journal of Research in Childhood Education*, 28, 221-237. DOI: 10.1080/02568543.2014.883452
- Coolahan, K., Fantuzzo, J., Mendez, J. & McDermott, P. (2000). Preschool peer interactions and readiness to learn: Relationships between classroom peer play and learning behaviors and conduct. *Journal of Educational Psychology*, 92:3, pp. 458-465.
- Coplan, R.J., Schneider, B. H., Matheson, A., & Graham, A. (2010). 'Play skills' for shy children: development of a social skills facilitated play early intervention program for extremely inhibited preschoolers. *Infant and Child Development*, 19, 223-237. DOI: 10.1002/icd.668
- Couch, K., Deitz, J., Kanny, E. (1998). The role of play in pediatric occupational therapy. *American Journal of Occupational Therapy*, 52(2):111–117. <https://doi.org/10.5014/ajot.52.2.111>
- Creswell, J.W. and Clark, V.L.P. (2018). Core Mixed Methods Designs. In J.W. Creswell & V.L.P. Clark. *Designing and conducting mixed methods research* (pp. 49-99). Thousand Oaks, CA: Sage.
- D'Angour. (2013). Plato and play: Taking education seriously in ancient Greece. *American Journal of Play*, 5(3), 293–307.

- Dejonckheere, De Wit, N., Van de Keere, K., & Vervaet, S. (2016). Exploring the classroom: Teaching science in early childhood. *International Electronic Journal of Elementary Education*, 8(4), 537–558.
- Dewey, J. (1900). *The school and society*. Chicago: University of Chicago Press.
- Dewey, J. (1916). *Play and Work in the Curriculum*. In *Democracy and education: An introduction to the philosophy of education*. (pp. 194-206) New York: Macmillan
- Dickie, V., Cutchin, M. & Humphrey, R. (2006). Occupation as transactional experience: A critique of individualism in occupational science. *Journal of Occupational Science*, 13:1, 83-93.
- DiCorcia, J. A., & Tronick, E. (2011). Quotidian resilience: Exploring mechanisms that drive resilience from a perspective of everyday stress and coping. *Neuroscience and Biobehavioral Reviews*, 35(7), 1593–1602.
<https://doi.org/10.1016/j.neubiorev.2011.04.008>
- Dodd, H. F., Nesbit, R. J., & FitzGibbon, L. (2022). Child’s Play: Examining the Association Between Time Spent Playing and Child Mental Health. *Child Psychiatry and Human Development*. <https://doi.org/10.1007/s10578-022-01363-2>
- Downer, J., Sabol, T. & Hamre, B. (2010). Teacher-child interactions in the classroom: toward a theory of within and cross-domain links to children’s developmental outcomes. *Early Education and Development*, 21:5, 699-0723.
- Duncan, G., Dowsett, C., Claessens, A., Magnuson, K., Huston, A., Klebanov, P., ... Japel, C. (2008). “School readiness and later achievement”: Correction to Duncan et al. (2007). *Developmental Psychology*, 44(1), 232–232. <https://doi.org/10.1037/0012-1649.44.1.217>

- Durkin, K., Lipsey, M. W., Farran, D. C., & Wiesen, S. E. (2022). Effects of a statewide pre-kindergarten program on children's achievement and behavior through sixth grade. *Developmental Psychology*. <https://doi.org/10.1037/dev0001301>
- Eggum-Wilkens, N., Fabes, R., Castle, S., Zhang, L., Hanish, L., & Martin, C. (2014). Playing with others: Head Start children's peer play and relations with kindergarten school competence. *Early Childhood Research Quarterly*, 29(3), 345–356. <https://doi.org/10.1016/j.ecresq.2014.04.008>
- Elkonin, D. B. (1978). The psychology of play. *Journal of Russian and East European Psychology*, 43(6), 95–96. (2005 English reprint) <https://doi.org/10.1080/10610405.2005.11059272>
- Every Student Succeeds Act. (2015). [U.S. Government Publishing Office].
- Fesseha, E. & Pyle, A. (2016) Conceptualizing play-based learning from kindergarten teachers' perspectives, *International Journal of Early Years Education*, 24:3, 361-377, DOI: 10.1080/09669760.2016.1174105
- Fisher, A., Hirsh-Pasek, K., Golinkoff, R. M., & Gryfe, S. G. (2008). Conceptual split? Parents' and experts' perceptions of play in the 21st century. *Journal of Applied Developmental Psychology*, 29(4), 305–316. <https://doi.org/10.1016/j.appdev.2008.04.006>
- Fitzpatrick. (2017). Ready for kindergarten: Are intelligence skills enough? *South African Journal of Childhood Education*, 7(1), e1–e8. <https://doi.org/10.4102/sajce.v7i1.512>
- Fleer, M. (2021). How conceptual play worlds in preschool settings create new conditions for children's development during group time. *Learning, Culture and Social Interaction*, 28, 100438–. <https://doi.org/10.1016/j.lcsi.2020.100438>

- Foley, G. M. (2017). Play as Regulation Promoting Self-Regulation Through Play. *Topics in Language Disorders*, 37(3), 241–258. <https://doi.org/10.1097/TLD.0000000000000129>
- Fosco, G. M., Sloan, C. J., Fang, S., & Feinberg, M. E. (2022). Family vulnerability and disruption during the COVID-19 pandemic: prospective pathways to child maladjustment. *Journal of Child Psychology and Psychiatry*, 63(1), 47–57. <https://doi.org/10.1111/jcpp.13458>
- Froebel, F. (1912). *Froebel's chief educational writings*. Edward Arnold & Co.
- Frost, J. (June, 1998). Neuroscience, play and child development. IPA/USA Triennial Conference. Longmont, CO.
- Giese, T. (2021). Best practices in intervention in preschool. In Frolek-Clark, G., & Parks, S. (Eds.). *Best practices for occupational therapy in early childhood*. (pp. 173-180). AOTA Press.
- Ginsburg, K. (2007). The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics*, 119(1), 182–191. <https://doi.org/10.1542/peds.2006-2697>
- Glesne, C. (2016). *Becoming qualitative researchers: An introduction*. New York, NY: Pearson.
- Glesne, C. (2016). *Becoming qualitative researchers: An introduction*. New York, NY: Pearson.
- Goldstein, T. G., & Lerner, M. D. (2018). Dramatic pretend play games uniquely improve emotional control in young children. *Developmental Science*, 21. DOI: 10.1111/desc.12603
- Goodrich, S., Mudrick, H., & Robinson, J. (2015). The transition from early childcare to preschool: Emerging toddler skills and readiness for group-based learning. *Early*

Education and Development, 26(7), 1035–1056.

<https://doi.org/10.1080/10409289.2015.1006978>

- Graber, K. M., Byrne, E. M., Goodacre, E. J., Kirby, N., Kulkarni, K., O’Farrelly, C., & Ramchandani, P. G. (2021). A rapid review of the impact of quarantine and restricted environments on children’s play and the role of play in children’s health. *Childcare, Health & Development*, 47(2), 143–153. <https://doi.org/10.1111/cch.12832>
- Gray, P. (2011). The decline of play and the rise of psychopathology in children and adolescents. *American Journal of Play*, 3(4), 443-463.
- Harrington, Trevino, S. D., Lopez, S., & Giuliani, N. R. (2020). Emotion regulation in early childhood: Implications for socioemotional and academic components of school readiness. *Emotion*, 20(1), 48–53. <https://doi.org/10.1037/emo0000667>
- Harris, R. C. (2007). Motivation and school readiness: what is missing from current assessments of preschooler’s readiness for kindergarten? *NHSA Dialog*, 10:3-4, 151-163.
- Hassinger-Das, B., Hirsh-Pasek, K., & Golinkoff, R. M. (2017). The case of brain science and guided play: A developing story. *Young Children*, 72(2), 45–50.
- Hatcher, B., Nuner, J. & Paulson, J. (2012). Kindergarten readiness and preschools: Teachers’ and parents’ beliefs within and across programs. *Early Childhood Research & Practice: ECRP.*, 14(2).
- Head Start Early Learning Standards (2019). Retrieved from:
<https://eclkc.ohs.acf.hhs.gov/school-readiness/article/head-start-early-learning-outcomes-framework>.
- Head Start impact study: effectiveness of the head start program through third grade. (2014). *The Congressional Digest*, 93(4), 5-9.

- Hedges, H. & Cooper, M. (2018). Relational play-based pedagogy: Theorizing a core practice in early childhood education. *Teachers and Teaching*, 24:4, 369-383.
- High, P. (2008). School readiness. *Pediatrics*, 121(4), e1008–e1015.
<https://doi.org/10.1542/peds.2008-0079>
- Hirsch-Pasek, K., & Golinkoff, R. M. Why play equals learning. In *Encyclopedia on Early Childhood Development*, Eds. Tremblay, R. E., Boivan, M., & Peters, R. D.
- Humphry, R. & Wakeford, L. (2006). An occupation-centered discussion of development and implications for practice. *American Journal of Occupational Therapy*, 60, 258-267.
- Hunt, J. (1961). *Intelligence and experience*. New York: Ronald Press Co.
- Hustedt, J. T., Buell, M. J., Hallam, R. A., & Pinder, W. M. (2018). While kindergarten has changed, some beliefs stay the same: Kindergarten teachers' beliefs about readiness. *Journal of Research in Childhood Education*, 32(1), 52–66.
<https://doi.org/10.1080/02568543.2017.1393031>
- Immordino-Yang, Darling-Hammond, L., & Krone, C. R. (2019). Nurturing nature: How brain development is inherently social and emotional, and what this means for education. *Educational Psychologist*, 54(3), 185–204.
<https://doi.org/10.1080/00461520.2019.1633924>
- International classification of functioning, disability and health: ICF. (2001). World Health Organization.
- Jenkins, J., Duncan, G. J., Auger, A., Bitler, M., Domina, T., & Burchinal, M. (2018). Boosting school readiness: Should preschool teachers target skills or the whole child? *Economics of Education Review*, 65, 107–125. <https://doi.org/10.1016/j.econedurev.2018.05.001>

- Jonasdottir, S., Hand, C. Misenger, L. & Polgar, J. (2018). Applying case study methodology to occupational science research. *Journal of Occupational Science*, 25:3, 393-407.
- Kielhofner, G. (2009). Emergence of the contemporary paradigm: A return to occupation. In G. Kielhofner (Ed.), *Conceptual foundations of occupational therapy practice* (4th ed.) (pp. 15-29). Philadelphia: F. A. Davis Co
- Knox, S. (2008). Development and Current Use of the Revised Knox Preschool Play Scale-3. In *Play in Occupational Therapy for Children* (pp. 55–70). <https://doi.org/10.1016/B978-032302954-4.10003-0>
- Kuhaneck, H., Tanta, K. , Coombs, A. & Pannone, H. (2013) A survey of pediatric occupational therapists' use of play, *Journal of Occupational Therapy, Schools, & Early Intervention*, 6:3, 213-227, DOI: 10.1080/19411243.2013.850940
- Lau, C., Higgins, K., Gelfer, J., Hong, E., & Miller, S. (2005). The effects of teacher facilitation on the social interactions of young children during computer activities. *Topics in Early Childhood Special Education* 25, 208-217. DOI: 10.1177/02711214050250040201
- Law, M. (2002). Participation in the occupations of everyday life. *The American Journal of Occupational Therapy*, 56(6), 640–649. <https://doi.org/10.5014/ajot.56.6.640>
- Li, Y., Coplan, R. J., Wang, Y., Yin, J., Zhu, J., Gao, Z., & Li, L. (2016). Preliminary evaluation of a social skills training and facilitated play early intervention programme for extremely shy young children in China. *Infant and Child Development*, 25, 565-574. DOI: 10.1002/icd.1959
- Lillard, A. S., Lerner, M. D., Hopkins, E. J., Dore, R. A., Smith, E. D., & Palmquist, C. M. (2013). The impact of pretend play on children’s development: A review of the evidence. *Psychological Bulletin*, 139(1), 1–34. <https://doi.org/10.1037/a0029321>

- Lipina, S. J. & Posner, M. I. (2012). The impact of poverty on the development of brain networks. *Frontiers in Human Neuroscience*, 6, 238–238.
<https://doi.org/10.3389/fnhum.2012.00238>
- LoCasale-Crouch, J., Mashburn, A. J., Downer, J. T., & Pianta, R. C. (2008). Pre-kindergarten teachers' use of transition practices and children's adjustment to kindergarten. *Early Childhood Research Quarterly*, 23, 124-139.
- Magnuson, K., Ruhm, C., & Waldfogel, J. (2007). Does kindergarten improve school preparation and performance? *Economics of Education Review*, 26, 33-51.
- Martini, Cramm, H., Egan, M., & Sikora, L. (2016). Scoping review of self-regulation: What are occupational therapists talking about? *The American Journal of Occupational Therapy*, 70(6), 7006290010p1–7006290010p15. <https://doi.org/10.5014/ajot.2016.020362>
- McBryde, C., Ziviani, J., and Cuskelly, M. (2004). School readiness and factors that influence decision making. *Occupational Therapy International*, 11:4, 193-208.
- McCoy, D. C., Cuartas, J., Behrman, J., Cappa, C., Heymann, J., López Bóo, F., ... Fink, G. (2021). Global estimates of the implications of COVID-19-related pre-primary school closures for children's instructional access, development, learning, and economic wellbeing. *Child Development*, 92(5), e883–e899. <https://doi.org/10.1111/cdev.13658>
- McLean, K., Lake, G., Wild, M., Licandro, U., & Evangelou, M. (2023). Perspectives of play and play-based learning: What do adults think play is? *Australasian Journal of Early Childhood*, 48(1), 5–17. <https://doi.org/10.1177/18369391221130790>
- McNally & Slutsky (2017) Key elements of the Reggio Emilia approach and how they are interconnected to create the highly regarded system of early childhood education, *Early*

- Child Development and Care, 187(12), 1925-1937,
<https://doi.org/10.1080/03004430.2016.1197920>
- Meyer, A. (1922). The philosophy of occupational therapy. *Archives of Occupational Therapy*, 1, 1-20.
- Miller, A. R. & Saenz, L. P. (2021). Exploring relationships between play spaces, pedagogy, and preschoolers' play-based science and engineering practices. *Journal of Childhood, Education & Society*, 2(3), 314–337. <https://doi.org/10.37291/2717638X.202123121>
- Milteer, R., & Ginsburg, K. (2012). The importance of play in promoting healthy child development and maintaining strong parent-child bond: focus on children in poverty. *Pediatrics*, 129(1), e204–13. <https://doi.org/10.1542/peds.2011-2953>
- Montrosse-Moorhead, Dougherty, S. M., La Salle, T. P., Weiner, J. M., & Dostal, H. M. (2019). The overall and differential effects of a targeted prekindergarten program: Evidence from Connecticut. *Early Childhood Research Quarterly*, 48, 134–145.
<https://doi.org/10.1016/j.ecresq.2019.02.006>
- Moon, & Reifel, S. (2008). Play and literacy learning in a diverse language pre-kindergarten classroom. *Contemporary Issues in Early Childhood*, 9(1), 49–65.
<https://doi.org/10.2304/ciec.2008.9.1.49>
- Moore, A., & Lynch, H. (2018). Play and play occupation: A survey of pediatric occupational therapy practice in Ireland. *Irish Journal of Occupational Therapy*, 46(1), 59–72.
<https://doi.org/10.1108/IJOT-08-2017-0022>
- Myers, C., Case-Smith, J. & Cason, J. (2015). Early intervention. Case-Smith, J. & Clifford-O'Brien, J. (Eds.) In *Occupational Therapy for Children and Adolescents*. 636-663. St. Louis: Elsevier.

- National Association for the Education of Young Children (2017). Retrieved from:
<https://www.naeyc.org/resources/pubs/yc/jul2017/outdoor-play-child-development>
- National Center for Education Statistics. (2022). Students With Disabilities. Condition of Education. U.S. Department of Education, Institute of Education Sciences. Retrieved [date], from <https://nces.ed.gov/programs/coe/indicator/cgg>.
- National Center for Educational Statistics (2018). Retrieved from: <https://nces.ed.gov/>
- National Commission of Excellence in Education (1983). A nation at risk: The imperative for educational reform. https://edreform.com/wp-content/uploads/2013/02/A_Nation_At_Risk_1983.pdf
- Nelson, B., Dudovitz, R., Tumaini, C., Barnert, E., Biely, C., Ning, L., Szilagyi, P., Larson, K., Haifon, N., Zimmerman, F., & Chung, P. (2016). Predictors of poor school readiness in children without developmental delay at age 2. *Pediatrics*, 138 (2), 1-12.
- Nicolopoulou, A. (2010). The alarming disappearance of play from early childhood education. *Human Development*, 53(1), 1–4. <https://doi.org/10.1159/000268135>
- Nilsson, Ferholt, B., & Lecusay, R. (2018). “The playing-exploring child”: Reconceptualizing the relationship between play and learning in early childhood education. *Contemporary Issues in Early Childhood*, 19(3), 231–245. <https://doi.org/10.1177/1463949117710800>
- O’Gorman, L., & Ailwood, J. (2012). ‘They get fed up with playing’: Parents’ views on play-based learning in the preparatory year. *Contemporary Issues in Early Childhood*, 13(4), 266–275. <https://doi.org/10.2304/ciec.2012.13.4.266>
- O’Sullivan, & Ring, E. (2018). Play as learning: implications for educators and parents from findings of a national evaluation of school readiness in Ireland. *International Journal of Play*, 7(3), 266–289. <https://doi.org/10.1080/21594937.2018.1532720>

- O'Connor, C., & Stagnitti, K. (2011). Play, behaviour, language and social skills: The comparison of a play and a non-play intervention within a specialist school setting. *Research in Developmental Disabilities: A Multidisciplinary Journal*, 32, 1205-1211.
DOI: 10.1016/j.ridd.2010.12.037
- Pace, A., Alper, R., Burchinal, M. R., Golinkoff, R. M., & Hirsh-Pasek, K. (2019). Measuring success: Within and cross-domain predictors of academic and social trajectories in elementary school. *Early Childhood Research Quarterly*, 46, 112–125.
<https://doi.org/10.1016/j.ecresq.2018.04.001>
- Persch, A. (2015). Health policy perspectives-healthy habits for children: Leveraging existing evidence to demonstrate value. *American Journal of Occupational Therapy*, 69, 6904090010.
- Piaget, J. (1951). *Play, dreams, and imitation in childhood*. First ed., 1945. Translated by C. Gattegno and F. M. Hodgson. New York: International Universities Press.
- Piaget, J. (1952). *The origins of intelligence in children*. First ed., 1936. translated by Margaret Cook. New York: International Universities Press.
- Piaget, J. (1964). *The psychology of intelligence*. Routledge & Paul.
- Pierce, D., Munier, V., & Myers, C. (2009). Informing early intervention through an occupational science description of infant-toddler interactions with home space. *The American Journal of Occupational Therapy*, 63(3), 273–287.
<https://doi.org/10.5014/ajot.63.3.273>
- Pistorova, & Slutsky, R. (2018). There is still nothing better than quality play experiences for young children’s learning and development: Building the foundation for inquiry in our

- educational practices. *Early Child Development and Care*, 188(5), 495–507.
<https://doi.org/10.1080/03004430.2017.1403432>
- Plato (427-347 BC). In *Laws* (Book 1).
- Pramling Samuelsson, I. & Johansson, E. (2006). Play and learning-inseparable dimensions in preschool practice. *Early Child Development and Care*, 176(1), 47–65.
<https://doi.org/10.1080/0300443042000302654>
- Pui-Wah, & Stimpson, P. (2004). Articulating contrasts in kindergarten teachers' implicit knowledge on play-based learning. *International Journal of Educational Research*, 41(4), 339–352. <https://doi.org/10.1016/j.ijer.2005.08.005>
- Rademacher, A., Goagoses, N., Schmidt, S., Zumbach, J., & Koglin, U. (2021). Preschoolers' profiles of self-regulation, social-emotional and behavior skills and its prediction for a successful behavior adaptation during the transitional period from preschool to elementary school. *Early Education and Development*, 1–15.
<https://doi.org/10.1080/10409289.2021.1958283>
- Reilly, M. (1962). Occupational therapy can be one of the great ideas of 20th century medicine. *American Journal of Occupational Therapy*, 16, 1-9.
- Reilly, M. (1974). An explanation of play. In M. Reilly (Eds), *Play as Exploratory Learning*. Beverly Hills, CA: Sage Publishing, 117-151.
- Riley, B. (2021). Best practices in supporting play and leisure activities. In Frolek Clark, G., & Parks, S. (Eds.). *Best practices for occupational therapy in early childhood*. (pp. 301-308). AOTA Press.

- Roiste, Áine De. (2018). Nurturing resilience: the “ordinary magic” of everyday life. *Revista Brasileira de Crescimento e Desenvolvimento Humano*, 28(3), 278–282.
<https://doi.org/10.7322/jhgd.152175>
- Rushton, S., Juola-Rushton, A., & Larkin, E. (2010). Neuroscience, play and early childhood education: connections, implications and assessment. *Early Childhood Education Journal*, 37(5), 351–361. <https://doi.org/10.1007/s10643-009-0359-3>
- Samuelsson, I., & Carlsson, M. (2008). The playing learning child: Towards a pedagogy of early childhood. *Scandinavian Journal of Educational Research*, 52(6), 623–641.
<https://doi.org/10.1080/00313830802497265>
- Sawyer, J. E., & Goldstein, T. (2019). Can guided play and storybook reading promote children’s drawing development? *Empirical Studies of the Arts*, 37, 32-59. DOI: 10.1177/0276237418777946
- Schwartz, K. (1992). Occupational therapy and education: a shared vision. *The American Journal of Occupational Therapy*, 46(1), 12–18. <https://doi.org/10.5014/ajot.46.1.12>
- Scott-Little, C., Kagan, S. L., & Farlow, V. S. (2006). Conceptualization of readiness and the content of early learning standards: The intersection of policy and research. *Early Childhood Research Quarterly*, 21, 153-173.
- Seelman, K. (2000). Rehabilitation science. *Technology & Disability*, 12, 77-83.
- Shoaga. (2015). Play and learning: Inseparable dimensions to early childhood education. *Journal of Educational and Social Research*. <https://doi.org/10.5901/jesr.2015.v5n2p185>
- Sim, Z. L., & Xu, F. (2017). Learning higher-order generalizations through free play: Evidence from 2- and 3-year-old children. *Developmental Psychology*, 53(4), 642–651. <https://doi.org/10.1037/dev0000278>

- Singletary, B., Schmeer, K. K., Purtell, K. M., Sayers, R. C., Justice, L. M., Lin, T., & Jiang, H. (2022). Understanding family life during the COVID-19 shutdown. *Family Relations*, 71(2), 475–493. <https://doi.org/10.1111/fare.12655>
- Sinha. (2012). *The land of make-believe: Using sociodramatic play to increase kindergartners' self-regulatory abilities*. ProQuest Dissertations Publishing.
- Sisson, & Kroeger, J. (2017). “They get enough of play at home”: a Bakhtinian interpretation of the dialogic space of public-school preschool. *Early Child Development and Care*, 187(5-6), 812–826. <https://doi.org/10.1080/03004430.2016.1252533>
- Skene, K., O’Farrelly, C. M., Byrne, E. M., Kirby, N., Stevens, E. C., & Ramchandani, P. G. (2022). Can guidance during play enhance children’s learning and development in educational contexts? A systematic review and meta-analysis. *Child Development*, 93(4), 1162–1180. <https://doi.org/10.1111/cdev.13730>
- Slot, P. L., Mulder, H., Verhagen, J., Leseman, P., & Leerstoel Leseman. (2017). Preschoolers’ cognitive and emotional self-regulation in pretend play: Relations with executive functions and quality of play. *Infant and Child Development*, 26(6), e2038–n/a. <https://doi.org/10.1002/icd.2038>
- Smith, P. K. & Pellegrini, A. (2008). Learning through play. In *Encyclopedia on Early Childhood Development*, Eds. Tremblay, R. E., Boivan, M., & Peters, R. D.
- Smith, P. K., Dalglish, M., & Herzmark, G. (1981). A comparison of the effects of fantasy play tutoring and skills tutoring in nursery classes. *International Journal of Behavioral Development*, 4, 421–441. DOI: 10.1177/016502548100400403
- Snow, & Matthews, T. J. (2016). Reading and language in the early grades. *The Future of Children*, 26(2), 57–74. <https://doi.org/10.1353/foc.2016.0012>

- Souto-Manning. (2017). Is play a privilege or a right? And what's our responsibility? On the role of play for equity in early childhood education. *Early Child Development and Care*, 187(5-6), 785–787. <https://doi.org/10.1080/03004430.2016.1266588>
- Stagnitti, K., Bailey, A., Hudspeth Stevenson, E., Reynolds, E., & Kidd, E. (2016). An investigation into the effect of play-based instruction on the development of play skills and oral language. *Journal of Early Childhood Research*, 14(4), 389–406. <https://doi.org/10.1177/1476718X15579741>
- Stake. (1995). *The art of case study research*. Sage Publications.
- Sutherland, S., & Friedman, O. (2013). Just pretending can be really learning: Children use pretend play as a source for acquiring generic knowledge. *Developmental Psychology*, 49(9), 1660–1668. <https://doi.org/10.1037/a0030788>
- Sutton-Smith, B. (1997). *The ambiguity of play*. Harvard University Press.
- Taylor, & Boyer, W. (2019). Play-based learning: Evidence-based research to improve children's learning experiences in the kindergarten classroom. *Early Childhood Education Journal*, 48(2), 127–133. <https://doi.org/10.1007/s10643-019-00989-7>
- Toub, T., Hassinger-Das, B., Nesbitt, K. T., Ilgaz, H., Weisberg, D. S., Hirsh-Pasek, K., Golinkoff, R. M., Nicolopoulou, A., & Dickinson, D. K. (2018). The language of play: Developing preschool vocabulary through play following shared book-reading. *Early Childhood Research Quarterly*, 45, 1–17. <https://doi.org/10.1016/j.ecresq.2018.01.010>
- Tronick, E., & DiCorcia, J. A. (2015). The Everyday Stress Resilience Hypothesis: A Reparatory Sensitivity and the Development of Coping and Resilience. *Children Australia*, 40(2), 124–138. <https://doi.org/10.1017/cha.2015.11>

- Truong, V. & Hodgetts, S. (2017) An exploration of teacher perceptions toward occupational therapy and occupational therapy practices: A scoping review. *Journal of Occupational Therapy, Schools, & Early Intervention*, 10:2, 121-136, DOI: 10.1080/19411243.2017.1304840
- United States Census Bureau (2022). Population estimate for Fort Collins, CO.
- Valentino. (2018). Will public pre-k really close achievement gaps? gaps in prekindergarten quality between students and across states. *American Educational Research Journal*, 55(1), 79–116. <https://doi.org/10.3102/0002831217732000>
- Vitiello, V., & Greenfield, D. (2017). Executive functions and approaches to learning in predicting school readiness. *Journal of Applied Developmental Psychology*, 53, 1–9. <https://doi.org/10.1016/j.appdev.2017.08.004>
- Vogt, Hauser, B., Stebler, R., Rechsteiner, K., & Urech, C. (2018). Learning through play - pedagogy and learning outcomes in early childhood mathematics. *European Early Childhood Education Research Journal*, 26(4), 589–603. <https://doi.org/10.1080/1350293X.2018.1487160>
- Vygotsky, L. (1966). Play and its role in the mental development of the child. *International Research in Early Childhood Education*, 7(2), 3–25. (Reprinted 2016)
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, Mass.: Harvard University Press
- Weisberg, D., Hirsh-Pasek, K., & Golinkoff, R. M. (2013). Embracing complexity: Rethinking the relation between play and learning: Comment on Lillard et al. (2013). *Psychological Bulletin*, 139(1), 35–39. <https://doi.org/10.1037/a0030077>

- Weisberg, D., Hirsh-Pasek, K., & Golinkoff, R. M. (2013). Guided play: Where curricular goals meet a playful pedagogy. *Mind, Brain, and Education*, 7(2), 104–112.
<https://doi.org/10.1111/mbe.12015>
- Weisberg, D., Hirsh-Pasek, K., Golinkoff, R. M., Kittredge, A. K., & Klahr, D. (2016). Guided play: Principles and practices. *Current Directions in Psychological Science: a Journal of the American Psychological Society*, 25(3), 177–182.
<https://doi.org/10.1177/0963721416645512>
- Williford, A. P., Vick Whittaker, J. E., Vitiello, V. E., & Downer, J. T. (2013). Children’s engagement within the preschool classroom and their development of self-regulation. *Early Education and Development*, 24(2), 162–187.
<https://doi.org/10.1080/10409289.2011.628270>
- Wood E., & Bennett N. (2000). Changing theories, changing practice: Exploring early childhood teachers’ professional learning. *Teacher and Teacher Education*, 16, 635–647.
- Yerxa, E. (1990). An introduction to occupational science, a foundation for occupational therapy in the 21st century. *Occupational Therapy in Health Care*, 6(4), 1–17.
https://doi.org/10.1300/J003v06n04_04
- Yin, R. (2018). *Case study research and applications designs and methods*. Los Angeles: Sage.
- Yogman, M., Garner, A., Hutchinson, J., Hirsh-Pasek, K., & Golinkoff, R. (2018). The power of play: A pediatric role in enhancing development in young children. *Pediatrics*, 142(3).
<https://doi.org/10.1542/peds.2018-2058>
- Zosh, J. M., Hirsh-Pasek, K., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Solis, S. L., & Whitebread, D. (2018). Accessing the inaccessible: Redefining play as a spectrum. *Frontiers in Psychology*, 9, 1124–1124. <https://doi.org/10.3389/fpsyg.2018.01124>

Zosh, J. M., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Hirsh-Pasek, K...& Whitebread, D.
(2017). Learning through play: A review of the evidence (white paper). The LEGO
Foundation. Retrieved from
https://cms.learningthroughplay.com/media/wmtlmbe0/learning-through-play_web.pdf.

APPENDICES

Appendix A: Initial Parent Interview Protocol

1. How is (child) and your family adjusting to leaving the Early Childhood Center and starting kindergarten?
2. In what ways do you think play-based early childhood education has prepared your child to enter kindergarten? (Prompts- what do you know about school readiness, what informs your understanding of school readiness, differences between your child and other non-PBECE kids)
3. Why did you decide to send (child) to kindergarten this year? (prompts: what factors did you consider, were there any doubts/uncertainties, what resources informed your decision)
4. What factors did you consider when choosing (elementary) for your child?
5. (Child) started kindergarten (this week) – can you tell me how this adjustment has gone so far? (Prompts-fears, hopes, expectations, child’s perspective, etc)

Appendix B: Initial Kindergarten Teacher Interview Protocol

1. What does “ready for kindergarten” mean to you?
2. What types of experiences do you see preparing children well for kindergarten?
3. What do you look for in a child to indicate that they are having a successful kindergarten transition?
4. What do you see in (child) that tells you s/he is transitioning well into kindergarten?
5. Tell me how (child) is adapting to kindergarten so far?

Appendix C: Second Parent Interview Protocol

1. What would {child} say is the best part about being a kindergartener?
2. What do you think is going well for {child} in kindergarten?
3. What do you hope {child} learns or experiences over the remainder of the school year?
4. {child} has lived through many changes this past year with kindergarten. What has {child} said about all the twists and turns of the school year?
5. Outside of remote learning, how would you say {child} life as a kindergartener has been different over the past year, in comparison to {older child's} experience or the experience you imagined {s/he} would have?
6. {Child} is now a bit more than halfway through their kindergarten year. When you think about who {child} was a year ago at the ECC, and who {s/he} is becoming now, what changes do you see? This might be changing interests or routines, personality traits or ways of interacting with you or others.
7. Is there anything else about [child's] kindergarten experiences so far that you want to share with me? Anything you have noticed or want to discuss that I did not ask you about?

Appendix D: Second Teacher Interview Protocol

1. What do you think is going well for {child} in kindergarten?
2. Can you share with me an example of {child} work, and walk me through how this work illustrates {child} as a learner?
3. Can you tell me a good story about {child}- an event or observation that you think illustrates their character or personality as a kindergartener in your class?
4. What do you think {child} would say is the best part about being a kindergartener?
5. Outside of remote learning, how would you say {child} kindergarten experience has been different compared with other kindergarten cohorts you have taught?
6. What do you hope to see in {child} by the end of the school year?
7. Is there anything else about [child's] kindergarten experiences so far that you want to share with me?

Appendix E: Final Parent Interview Protocol

1. Walk me through the changes and growth you have seen in [child] as a learner and member of their classroom over this past year. How would you summarize his/her experiences and accomplishments with kindergarten?
2. During our first interview, we spoke at length about [child's] experiences with play-based education at the ECC, and how this might prepare him/her for kindergarten. I want to talk about how you think [child's] readiness for kindergarten aligns with the school readiness early learning domains described by the State of Colorado, which I list below for reference. Thinking back to last summer before the start of the school year, where would you say [child] was particularly strong as an incoming kindergartener, and did you have any concerns about [child's] readiness in any of these domains?
 - a. academic knowledge such as letter and number recognition,
 - b. overall health and development such as physical well-being and motor development,
 - c. social emotional development such as forming healthy relationships,
 - d. cognition such as attention and problem solving,
 - e. language and comprehensions such as verbal communication skills and
 - f. approaches to learning such as varied interests in topics and perseverance in accomplishing goals
3. As you think about the school readiness domains listed above, did any of these areas turn out to be more important in helping your child navigate their kindergarten year than others?

4. Now that you know what their kindergarten year entailed, how do you think play-based education contributed to [child's] kindergarten experience?
5. How do you think your child or your child's kindergarten year would have been different had they attended a more traditional or academic focused early childhood education center?
6. If you had to do it all over again, would you still choose play-based early childhood education for your child? Why or why not?
7. How are you feeling about [child] moving on to first grade?
8. Any other thoughts or insights you would like to share with me today? What else should I know about your child's play-based early childhood education experience or kindergarten year?

Appendix F: Final Teacher Interview Protocol

1. I want to begin our conversation by thinking back to the start of the school year. The State of Colorado describes six early learning development areas that promote readiness for kindergarten. How would you describe the readiness of [child] along these lines when s/he began kindergarten last fall? To what do you attribute any strengths or challenges with readiness for kindergarten?
 - a. academic knowledge such as letter and number recognition,
 - b. overall health and development such as physical well-being and motor development,
 - c. social emotional development such as forming healthy relationships,
 - d. cognition such as attention and problem solving,
 - e. language and comprehensions such as verbal communication skills and
 - f. approaches to learning such as varied interests in topics and perseverance in accomplishing goals
2. In completing your on-going formative and summative assessments and progress monitoring over the past school year, how well would you say [child] fit within your expectations for kindergarteners in your classroom this past year?
3. When you think about the children in your classroom this year, what stands out to you about [child] as a learner or classmate? Can you tell me a story that illustrates that?
4. As you know, [child] spent their early childhood years in a play-based early childhood education center. What do you see as the more formative experiences that contributed to how [child] presented in your classroom?

5. I want to talk about readiness for first grade, both for [child] and their cohort. How has the disruptions of the past school year affected this group of kindergartener's readiness to advance to first grade?
6. As I have gone through this past year studying school readiness and kindergarten transition, I have noticed that kindergarten teachers consistently speak of the importance of relationship and self-management skills as being essential for kindergarten readiness, yet parents feel pressured to have their children more advanced in academic knowledge. Why do you think that is?
7. Any other thoughts or insights you would like to share with me today? What else should I know about [child's] kindergarten year?