

Spring 3-6-2024

A Phenomenological Study on Preschool Educator Experience in Re-imagining Play and Play-Based Learning During the COVID-19 Pandemic

Ronabeth Keh So
DePaul University

Follow this and additional works at: https://via.library.depaul.edu/soe_etd



Part of the [Education Commons](#)

Recommended Citation

So, Ronabeth Keh, "A Phenomenological Study on Preschool Educator Experience in Re-imagining Play and Play-Based Learning During the COVID-19 Pandemic" (2024). *College of Education Theses and Dissertations*. 274.

https://via.library.depaul.edu/soe_etd/274

This Dissertation is brought to you for free and open access by the College of Education at Digital Commons@DePaul. It has been accepted for inclusion in College of Education Theses and Dissertations by an authorized administrator of Digital Commons@DePaul. For more information, please contact digitalservices@depaul.edu.

DePaul University
College of Education

**A Phenomenological Study on Preschool Educator Experience in Re-imagining Play and
Play-Based Learning During the COVID-19 Pandemic**

A Dissertation in Education
with a Concentration in Educational Leadership

by

Ronabeth Keh So

©2024 Ronabeth Keh So

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

June 2024

We approve the dissertation of Ronabeth K. So



March 5, 2024

Amira Proweller, PhD
Associate Professor
Department of Teacher Educator
Educational Policy Studies and Research
DePaul University
Committee Chair

Date



March 5, 2024

Mojdeh Bayat, PhD
Professor
Department of Teacher Education
DePaul University
Committee Member

Date



March 5, 2024

Amy Clark, PhD
Professional Lecturer
Department of Teacher Education
Early Childhood Education
DePaul University
Committee Member

Date

Certification of Authorship

I certify that I am the sole author of this dissertation. Any assistance received in the preparation of this dissertation has been acknowledged and disclosed within it. Any sources utilized, including the use of data, ideas and words, those quoted directly or paraphrased, have been cited. I certify that I have prepared this dissertation according program guidelines as directed.

A handwritten signature in black ink, appearing to be 'Ashu', written in a cursive style.

March 3, 2024

Author Signature: _____ Date: _____

Abstract

This phenomenological study explores how play-based preschool educators experienced and re-imagined play and play-based learning throughout the Covid-19 pandemic. Semi-structured interviews were conducted with six teachers and three administrators from three private Midwest play-based institutions. This study uncovers preschool educators' experiences of engaging in play-based learning throughout the different phases of the pandemic and delves into the issues and challenges of online learning and the subsequent return to the classroom. Results show that despite pedagogical adjustments and limitations brought about by online learning modalities and pandemic related restrictions, the nature of play remains unchanged and continues to be vital to a child's learning. The educators navigated the challenges they encountered by adhering to play-based philosophies and being responsive to the needs of the students. Educators focused on providing communication, fostering relationships, and providing students with opportunities to explore and utilize new environments as play spaces for learning. This study shows the need for critical supports for educators and students as they continue to experience negative effects of the pandemic upon their return to in-person learning. Implications of pandemic-related trauma emerging through behavioral issues in young learners indicate the need for further research into the long-term effects of the pandemic in children.

Keywords: play, play-based learning, Covid-19 pandemic, educator experience, trauma

Table of Contents

Acknowledgements.....	ix
Dedication.....	xi
Chapter 1: Introduction	1
Research Problem Statement.....	2
Research Purpose Statement	2
Research Questions	3
Research Design.....	4
Rationale and Significance	4
Research Identity and Positionality Statement	5
Researcher Assumptions.....	7
Definition of Key Terminology.....	8
Play	8
Play-Based Learning.....	9
Chapter 2: Review of Literature.....	10
Theoretical Framework	12
The Foundations of Play	13
Jean Piaget: Cognitive Underpinnings of Play	13
Leo Vygotsky: Play as a Social Construct.....	15
John Dewey: The Process of Play.....	17
Maria Montessori: Play and Real-Life Experience.....	18
Loris Malaguzzi: Children as the Constructors of Play	19
Types and Benefits of Play.....	20
Physical Play.....	22
Object Play.....	23
Symbolic Play	25
Social Play	26
Games with Rules	27
Converged Play.....	29
Overall Benefits of Play.....	30

Contemporary Issues of Play.....	32
Loss of Play.....	33
Perceptions on the Value of Play	34
The Risky Business of Play	36
Racial and Socio-Economic Inequities in Play.....	37
Play and Trauma	40
The Digital Play Debate.....	42
Play During a Pandemic.....	44
Conclusion.....	46
Chapter 3: Methodology.....	48
Rationale for Research Design.....	48
Research Setting and Context	50
Research Population, Sample, and Data Sources	51
Data Collection Methods.....	53
Data Analysis Methods	55
Issues of Trustworthiness	57
Limitations of the Study.....	58
Delimitations of the Study.....	59
Chapter 4: Findings	60
Overview: Play in Three Private Preschools.....	61
A Glimpse into Pre-Pandemic Play and Play-Based Learning	62
Child Centered Philosophy	63
Wholistic Child Development.....	65
Teachers as Facilitators.....	67
Play and Play-Based Learning During the COVID-19 Pandemic	68
The Transition to Online Learning	68
The Online Experience	71
Responding to Stakeholder Demands	71
Re-imaging Play Online.....	73
Challenges of Online Play	77
Returning to In-Person Learning	79

Responding to Pandemic-Related Restrictions in the Classroom.....	80
Challenges of In-Person Play-Based Learning during the Pandemic	82
Separation Issues.....	83
Self-Regulation and Communication.....	84
Parent Expectations.....	85
Educator Reflections on Re-Imagining Play and Play-Based Learning.....	87
Changes in Play and Play-Based Learning	87
Professional Growth and Development	91
Conclusion.....	95
Chapter 5: Discussion	97
Play-Based Learning Before the Pandemic.....	98
School Philosophies	98
Targeting Whole Child Development.....	100
Teachers as Facilitators.....	103
The Evolution of Play-Based Learning During the COVID-19 Pandemic	104
Transitions to Online Learning	105
Online Learning Strategies and Goals	105
Challenges During Online Learning	107
The “New Normal”: Returning to In-Person Instruction.....	109
Adapting to the “New Normal”	109
Challenges During the “New Normal”: Trauma and Effects of the Pandemic....	112
Reflections on the Experience of Play and Play-Based Learning During the Pandemic	114
Conclusion.....	116
Chapter 6: Conclusion	118
Researcher Insights	120
Respect for the Child	121
Revitalize Educator Supports.....	121
Realize and Respond to Learners’ Needs	122
Relevant Adaptation to Changing Playscapes	122
Recommendations	123
Educator Supports and Disaster Response Readiness	123

Parent and Community Education	124
Long-Term Effects of COVID-Related Trauma.....	125
Research Gaps.....	126
Appendix A: Teacher Interview Protocol.....	128
Appendix B: Administrator Interview Protocol	130
References	133

Acknowledgements

“It takes a village to raise a child” – African Proverb

This saying is very much applicable to going through a doctoral journey. I am grateful for having a strong and diverse village that made this journey and this dissertation possible. I would like to extend my heartfelt gratitude and appreciation to those who have journeyed with me.

First, I want to thank my parents, Dr. Robert So and Mrs. Beatriz So, for their endless guidance, support, and encouragement to strive for excellence in pursuing my dream. I am infinitely blessed to have parents who not only support our academic and professional pursuits, but also encourage us to be compassionate and responsible citizens of the world. Thank you, mom and dad. I love you!

Next, I want to thank my partners-in-crime, my siblings Rosebeth, Dr. Roizza, Roro, and Robby for always having my back, no matter what. You have kept me sane throughout this process and never fail to remind me of their love and support. I love you and will always have your back.

I would also like to express my sincerest gratitude to my Titas, Eden Bernal and Annie Jopson who are not only wonderful friends, but serve as a second family to me here in Chicago. Your warmth and generosity have made my transition into this doctoral journey easy, enjoyable, and meaningful. I also want to thank colleagues, my doctoral support group, family, and friends, both here and abroad, who have not only encouraged me but also served as sounding boards, critical peers, review buddies, and support systems. Thank you for being with me every step of the way.

I would like to express my profound gratitude and respect to my gracious and benevolent chair, Dr. Amira Proweller, for believing in my capacity to do this work, and for holding me to high standards. Your kindness, compassion, and understanding have made this process enjoyable

and as stress-free as a dissertation can conceivably be. Additionally, I extend my sincere thanks to Dr. Mojdeh Bayat and Dr. Amy Clark for their encouragement, guidance, and valuable insights. I am truly grateful for your expertise and generosity in sharing your knowledge with me. I count myself infinitely blessed to have such a well-rounded and amazing committee who not only showed me great kindness but also modeled professional and compassionate teaching to the highest degrees. Thank you all so much for taking on this journey with me.

I would also like to thank all the educators who have generously shared their time, resources, and expertise with me via this dissertation and throughout my career. Your voices are critical to shaping education, and your contributions are seen, valued, and appreciated. Lastly, thank you to all the children and students who have touched my life. You inspire me to be a better educator every day. You have all shaped me to become the educator I am, and for that, I am grateful.

To my dad-

Dr. Robert So,

Thank you for the gift of education and perseverance.

This journey would not have been possible without you.

To my mom-

Mrs. Beatriz So,

Thank you for the gift of play

which made my childhood magical and full of wonder.

CHAPTER 1

Introduction

The Covid-19 pandemic, which began in December 2019, required educational institutions to respond with a sudden shift in pedagogical practices to address health and safety concerns (UNESCO, 2020). The evolving and ongoing nature of the pandemic has prompted educators and administrators to continue to adapt to the emergent needs of students. The initial response of shifting learning to online modalities is not a new disaster response (Johnson et al., 2020) but is considered an interim solution (Hebebcı et al., 2020) which cannot replace the need for human interaction (Pascal & Bertram, 2021). As schools responded to Covid-19 mitigation measures, educators turned to various online learning platforms to engage students (Gülmez & Ordu; 2022). While online modalities served to mitigate the disruption of the education process, the lack of experiential learning and firsthand play opportunities created challenges for early childhood educators and learners (Gülmez & Ordu; 2022). The need for firsthand play and learning experiences, as well as interpersonal communication, is particularly critical to support the development of early childhood learners (Singh et al., 2020).

The play-based nature of preschool has required educators to reimagine pedagogical practices to safely comply with the health and safety standards during the Covid-19 pandemic (Gomes et al., 2021). Despite the presence of guidelines regarding Covid-19 related practices, as well as state mandated standards to guide education goals, the shifting demands to address pandemic related issues come with a unique set of challenges for educators as they grapple with the academic and practical demands of the current learning environment. While literature on learning during the pandemic is emerging, a gap in research, particularly in the field of early childhood education, continues to exist (Dayal & Tiko, 2020).

Research Problem Statement

According to Pascal and Bertram (2021), educators have shared that the nature of play has changed to adapt to the restrictions and safety protocols associated with the Covid-19 pandemic. Despite the efforts of educators to minimize disruptive changes in children's play and learning experiences, pandemic-related restrictions continued to affect learning environments (Pascal & Bertram, 2021). The lack of literature representing the field of early childhood education, specifically the teacher experience in the preschool years during the pandemic, poses a critical gap in research (Dayal & Tiko, 2020). Despite the emergence of research on students' return to in-person modalities, most of the existing literature focuses on the online learning experience during the pandemic and does not reflect play-based experiences (O'Keeffe & McNally, 2021). This dissertation sought to understand the experiences of preschool educators in re-imagining play and play-based learning, as well as uncover the issues and challenges they experienced while teaching during the Covid-19 pandemic.

Research Purpose Statement

Designed as a phenomenological study, this research study aimed to understand the experiences, issues, and challenges encountered by urban private preschool teachers engaged in play-based learning pedagogies within a large city in the Midwest during the Covid-19 pandemic. This study sought to discover ongoing supports available for early childhood educators as they continued to adjust to the demands of play-based learning during the ongoing pandemic. This study likewise aimed to better understand how early childhood educators coped with the changing playscape and the demands of play-based learning as it pertained to their overall teaching experience and well-being during the pandemic. Lastly, it sought to analyze how play has changed throughout the experience of play-based education during the pandemic.

Research Questions

The main research question guiding this dissertation study is as follows:

A. Central Question

- a. How have early childhood educators re-imagined play and play-based learning in their classrooms in response to the ongoing Covid-19 pandemic?

Sub-questions are as follows:

B. Process and Experience

- a. What was a day in class like during the pandemic versus before the pandemic?
- b. How did the teachers adjust to the online transition during the first part of the pandemic?
- c. How did the teachers adjust back to in-person classes during the latter part of the pandemic?
- d. How were teachers supported throughout this experience?

C. Issues and Challenges

- a. What are the perceived issues and challenges that teachers faced during the following experiences:
 - i. Transition to online learning
 - ii. Return to in-person classes

D. Reflections about the Experience

- a. How has play and play-based learning changed throughout the pandemic?
- b. How has the experience changed teacher philosophies or beliefs about play and play-based learning?
- c. What are the teachers' concerns moving forward?

Research Design

This qualitative study drew upon aspects of phenomenological methodology to better understand the lived experience, issues, and challenges of urban private preschool teachers who are engaged in play-based learning in a large Midwest city. Interviews were analyzed for themes and coded to identify specific issues and challenges experienced by early childhood educators in adapting play and play-based learning pedagogies in their classrooms during the Covid-19 pandemic. Descriptive narratives and relevant quotations were used to provide rich descriptions of participant experiences as they painted a picture of play-based education during the pandemic.

Rationale and Significance

The Covid-19 pandemic was an experience that directly affected traditional in-person educational delivery models. Educators have had to innovate and respond to the crisis by adjusting pedagogies and teaching practices to address student needs. While literature on learning and the return to in-person delivery during the pandemic is emerging (O’Keeffe & McNally, 2021), most research has focused on online learning modalities and fails to include critical insights from the field of early childhood education (Dayal & Tiko, 2020). This study aimed to provide a glimpse into the experience of preschool teachers who were engaged in play-based learning throughout the pandemic. The study likewise sought to better understand the lived experiences, issues, and challenges experienced by preschool professionals as they grappled with the intricacies of educating young children during an unprecedented time of stress and uncertainty. This research endeavored to contribute towards building the existing knowledge on preschool teachers’ pedagogical experience and hopes to provide insight into the firsthand experiences of preschool professionals who were serving at the forefront of educating the

youngest students during the time of the Covid-19 pandemic. Lastly, this research strove to better understand potential ways of re-imagining play and play-based learning in times of crisis.

Researcher Identity and Positionality Statement

For the past ten years, I have worn multiple hats as an educator. As a preschool teacher, I have experienced firsthand the inner workings of a classroom and all the challenges and triumphs associated with working with young children. I have worked with students with various speech and language issues as a speech therapist and served as parent liaison and special education consultant who advocated for learners with special needs. As a curriculum coordinator and head of a 20-team faculty, I took on the roles of facilitator, trainer, trouble shooter, conflict manager and mediator, adviser, and curriculum consultant.

Despite the perceived depth and variety of my professional experiences, I stepped into my leadership role with minimal preparation and struggled to find my place within my school community. In response to this, I crafted the 5 R's of my personal leadership philosophy to help me navigate the complexities of leadership, and to serve as guidelines for myself as I tackle the various roles in both my personal and professional life.

My personal philosophy in all things is to always fall back into “love and compassion.” As such, I envision myself as a leader and educator who *Respects* and cultivates understanding, and advocates for social and cultural sensitivity and inclusivity. I strive to *Revitalize* colleagues and learners to empower and engage in personal and communal goal setting, as well as engage in meaningful dialogical exchange towards *Realizing* goals and continuously progressing towards turning visions into action. In the process of realizing goals, it is essential to *Respond*, adapt, and innovate to the conditions and climate of our time. Continuous learning and development are necessary to remain effective amid evolving personal, social, and cultural movements. Lastly,

one needs to know when to *Relax* and appreciate the growth and progress achieved both personally and as a collective. I believe that cultivating self-care and stopping to reflect upon one's journey of learning and discovery is crucial for meaningful understanding of one's why for being.

As I found myself on a new path as a doctoral student, I faced another phase in my life where I envision myself in the capacity of student and researcher. I believe that I know who I am as a student and life-long learner. I believe in the search for truth and in learning about different narratives and experiences as I navigate my own education process. I still practice my 5 R's as I re-orient myself in my new role and engage with like-minded professionals who are on a quest towards developing a deeper understanding about leadership and education. Through introspection and self-reflection, I found my *raison d'etre* to engage in this journey. By asking "why," I discovered my answer: the 6th R to my existing philosophy – *Relevance*.

As a researcher, I want to aim for relevance. I aim for relevance not only for myself but also for the students and professionals with whom I work. I am cognizant of my responsibilities as an educator and leader to address emergent needs and issues in ways that are practical, informed, and substantiated by evidence, critical thinking, and analysis. Simply relying on existing information is not enough to address the unique requirements of modern education practices. This is evident especially during the Covid-19 pandemic where the education landscape in early childhood education has taken on unprecedented challenges. Administrators, teachers, families, and most importantly, students have had to adapt to new learning models, often without adequate preparation. The emergent challenges this shift introduced requires innovation coupled with evidence-based practices that will help shed light on critical issues that require solutions. To address these challenges, the voices of educators who were working in the

classrooms during Covid-19 must be heard. It is essential to understand firsthand, from the teachers themselves, the experiences and challenges they faced to find practical and actionable solutions to support them. This is my “why” for undertaking this research to investigate the struggles experienced by preschool teachers in adapting play-based pedagogies during the Covid-19 pandemic. With this project, I hope to uncover practical and critical issues associated with re-imagining play in the early years. I seek to empower early childhood leaders and educators to better understand the ongoing challenges of play-based learning during the Covid-19 pandemic, as well as help provide relevant information that could potentially inspire further research and solutions to support educators and students during these trying times. It is part of my “why” to adapt and respond to the demands of the times, and while this endeavor is limited in scope and scale, I believe that it is relevant and a worthwhile undertaking not only towards uplifting educational practices but also enriching my experience as an educator and researcher.

Researcher Assumptions

As an educator who believes in firsthand, experiential learning for preschool children, I believe that play is the main vehicle for learning for young children. I passionately believe that diverse types of play-based activities can effectively enrich and support a child’s learning and development. While there are various misconceptions about the value and importance of play in education, it is my contention that despite the challenges brought about by the pandemic, play can still be meaningful through thoughtfully prepared activities that stimulate and encourage learning. I also maintain that educators must support their pedagogies with evidence-based practices and continuous professional development to allow children to benefit from highly communicative and interactive opportunities for learning.

The initial switch to online learning during the Covid-19 pandemic and the subsequent return to in-person modalities has made educational delivery challenging particularly for early childhood practitioners engaged in play-based delivery models. The effects of the pandemic practices on experiential learning and play have prompted changes to practitioner's understanding of play. I acknowledge and clearly state that my understanding of play practices stems from my own professional experience, which does not include the firsthand experience of being in a classroom during the pandemic. As such, I shall endeavor to enact the phenomenological concept of *epoche* to explore my own experience and bracket my own beliefs and biases as I engage in this qualitative study and maintain continuous awareness of my own assumptions (Merriam & Grenier, 2019). *Epoche* shall guide me to identify and set aside my own prejudices and presumptions and allow me to focus on the lived experiences of the participants, whose stories I shall attempt to present as accurately and truthfully as possible.

Definitions of Key Terminology

Play

Play is defined as engagement in meaningful and joyful activities that promote social interaction, encourage exploration, and support knowledge acquisition (UNICEF, 2018). According to Özdoğru (2019), play is difficult to characterize due to its complex and varying iterations that reflect different personal, social, and cultural constructs. Children are naturally inclined to engage in play to construct knowledge and cultivate connections with the world around them (Parrot & Cohen, 2020; UNICEF, 2018). Play is considered critical to children's well-being and targets various areas of socio-emotional, communicative, creative, and cognitive developmental domains (American Academy of Pediatrics, 2018; The National Association for the Education of Young Children, 2020). The UN Convention on the Rights of the Child

recognizes play as a fundamental right of a child (United Nations, 2013), and in tandem with The International Play Association's Declaration of the Importance of Play, highlights the significance of play on children's overall development and well-being (International Play Association, 2014).

Play-Based Learning

Play-based learning is defined as a child-centered approach that provides developmentally appropriate experiences that allow children to explore, investigate, and engage in learning based on their interests and capabilities (Danniels & Pyle, 2018; Pyle & DeLuca, 2017; Taylor & Boyer, 2020). A play-based learning environment provides children with opportunities to engage in firsthand exploration, inquiry, and problem-solving in a safe and nurturing space (McGinn, 2017). Various types of play-based curricula can be self-directed, cooperative, or teacher-guided (Danniels & Pyle, 2018) and highlight the importance of self-regulation, peer interactions, and social development (McGinn, 2017), as well as cognitive and language learning, as part of a child's holistic development (Danniels & Pyle, 2018). The importance of play in early childhood development has prompted a shift towards play-based learning in early childhood settings throughout several countries including the United States (Danniels & Pyle, 2018).

For the purposes of this paper, the terms play, and play-based learning shall be used to pertain to activities and educational interactions between teachers and students that imbibe the joyful, meaningful, and interactive activities that encourage exploration and knowledge construction within the early childhood classroom.

CHAPTER 2

Review of Literature

Play is a complex universal and natural human experience that is difficult to characterize because of its varying iterations reflecting a myriad of personal and social constructs across cultures (Özdoğru, 2019). The United Nations Children's Fund (UNICEF, 2018) defines play as the active engagement in meaningful, joyful, iterative, and socially interactive activities that promote exploration and knowledge acquisition. Play is critical to children's well-being and targets various areas of socio-emotional, communicative, creative, and cognitive developmental domains (AAP, 2018; NAEYC, 2020). Children intrinsically engage in play to discover and understand the world around them through firsthand experiences that allow them to imagine, create, and acquire knowledge, as well as build connections, cultivate relationships, and foster self-expression (Parrot & Cohen, 2020; UNICEF, 2018). The right of children to engage in play was reiterated through General Comment No. 17 of Article 31 by the UN Convention on the Rights of the Child (United Nations, 2013) which discussed concerns regarding the loss of play and the lack of awareness and understanding from member States on how to appropriately address play-related issues and provide appropriate play opportunities for children. The International Play Association's Declaration of the Importance of Play further strengthened the United Nation's stance on the significance of play and discussed the detrimental effects of the loss of play to the overall development and well-being of children (IPA, 2014).

The importance of play in early childhood development has prompted a shift towards play-based learning in early childhood settings throughout several countries including the United States (Danniels & Pyle, 2018). Play-based learning is a child-centered approach that provides developmentally appropriate experiences designed to engage learning by focusing on the child's

interests and capabilities (Pyle & DeLuca, 2017; Taylor & Boyer, 2020). Play-based learning allows children the freedom to explore and investigate through diverse types of play that can be self-directed, cooperative, or teacher-guided (Danniels & Pyle, 2018). Play-based curricula highlight the importance of self-regulation, peer interactions, and social development (McGinn, 2017), as well as cognitive and language learning, as part of a child's holistic development (Danniels & Pyle, 2018). A play-based learning environment provides children with opportunities to make sense of the world around them through firsthand exploration, inquiry, trial and error, and problem-solving in a safe and nurturing space (McGinn, 2017). Learning through play likewise stimulates a child's innate curiosity and agency which can lay the foundations for life-long learning (Foulds & Bucuvalas, 2019). Play-based pedagogies incorporate several types of play and varying levels of educator involvement, guidance, and scaffolding through integrated and developmentally appropriate activities designed to engage and stimulate a child's innate curiosity and desire to explore (Pyle et al., 2020).

This body of literature seeks to provide an overview on play and play-based learning, as well as provide background on the theoretical contexts of play in education. To provide insight into the most current scholarship and conversations about play, this paper utilized sources from the Education Resources Information Center (ERIC), Google Scholar, DePaul University's Library Database, as well as DePaul's inter-library and database sharing resources to access various journals and articles. Organization websites of groups such as IPA, NAEYC, UNICEF, etc. were utilized for statements, guidelines, and current practices in early childhood education. This paper likewise lays out the current literature on the benefits of play and the contemporary issues in play and play-based learning environments within the field of early childhood education. A twelve-year range from 2012 to 2023 was applied, while key words such as "*play*,

play-based learning, issues, early childhood, etc.” were utilized to narrow down search parameters for relevant scholarship. Some older literature were also incorporated to show both stability of the concepts and continuity of the issues presented in the review, with the goal to identify potential gaps in literature for future research purposes.

Theoretical Framework

Constructivism is defined as a theory of actively constructing knowledge based on subjective realities and contextual experiences by a learner (Hershberg, 2014) that are, in turn, shaped by existing knowledge bases and interaction with the environment (Mohammed & Kinyo, 2020). The constructivist approach values the experiences of change and interaction in the process of meaning-making (Özer Sanal & Erdem, 2022).

In adult and professional learning, it is assumed that the learner already possesses substantial knowledge and experience that allows these learners to construct new knowledge through practical problem-solving practices and prior knowledge application (Mohammed & Kinyo, 2020). Since constructivists believe that learning comes from interactive and collaborative meaning-making, value can be obtained from examining real-life experiences (Arghode et al., 2017) to build upon existing founts of knowledge. By using constructivism to understand play, knowledge construction becomes authentic and collaborative while emphasizing learner ownership and problem-solving competencies (Huang, 2002). According to Özer Sanal and Erdem (2022), the knowledge learners obtain from others becomes meaningful when the learner reflects upon the experiences gained from those interactions. Reflexivity will allow learners of all ages to engage in collaborative and dialogical meaning making to uncover new learning (Mohammed & Kinyo, 2020). New knowledge can therefore be constructed from

exploration, interactions, and dialogue, and provide insights into novel experiences (Özer Sanal & Erdem, 2022).

A constructivist framework was utilized in this section to present a wholistic picture of play, starting from the theoretical foundations of play, then building upon those foundations with the different types of play. The discussion of contemporary issues of play were then presented to connect the theoretical foundations to practical and modern experiences of play in the early childhood classroom, to highlight not only the critical value of play, but also the relevance of play in modern times. Using a constructivist framework helped to establish connections between theory and practice and provides a concrete picture of play and the play experiences in early childhood education.

The Foundations of Play

Play and learning are often intertwined in the field of early childhood education (Nilsson et al., 2018). Several proponents and theorists of play have influenced play and learning practices since the 19th century until the present (Özdoğru, 2019). This section discusses several play theorists that have contributed heavily to the development of play in early childhood education. Analyzing the theoretical foundations of play from a constructivist point of view helps deepen the understanding of how learning occurs as knowledge is reconstructed based on the synthesis of one's existing understanding, experience, and reflexivity (Arghode et al., 2017; Mohammed & Kinyo, 2020; Özer Sanal & Erdem, 2022).

Jean Piaget: Cognitive Underpinnings of Play

One such theorist is Jean Piaget (1962) who believed that children learn naturally through exploration and imitation to assimilate experiences to construct knowledge. Piaget stated that children develop cognitive skills through problem-solving and develop moral and social norms

through negotiation during play (Özdoğru, 2019). Piaget further postulated that children learn organically by building upon and refining existing knowledge bases called “schemas” and learn to assimilate new strategies of comprehension and accommodate new schemas by adjusting through trial and error during play (Henricks, 2020). These adaptation strategies are self-regulated and enable a child to make sense of their environment. Piaget proposed that children’s ability to self-regulate enables them to construct knowledge and adapt it to their individual frames of reference or cognition (Zhang, 2022). For Piaget, play is a child’s natural laboratory for experimentation and exploration where they learn to manage themselves and their environment, as well as develop physical and symbolic ways of assimilation (Ünveren & Karakuş, 2020).

Piaget (1962) identified three types of play through his cognitive development theory. According to him, children from birth to two years assimilate information through sensorimotor cognitions consisting of repeated motions in what Piaget calls “practice play.” In the “pre-operational stage” between ages two to seven, children synthesize information in non-abstract ways (Piaget, 1962). From ages seven to eleven, children increasingly use abstract symbols in tandem with concrete examples in the “concrete operational stage” where they increasingly engage in what Piaget identified as “symbolic play.” The “formal-operational stage” comes after the age of eleven wherein children are capable of abstraction, standard logic, and managing schemas that will lay the foundation for adult cognition. At this stage, children can engage in games with rules where they apply skills that involve the use of logic, planning, and strategizing in their play (Henricks, 2020; Özdoğru, 2019; Piaget, 1962; Zhang, 2022). Piaget later added a fourth type of play called “constructive play” which he described as a way of playing where

children build and construct their own realities using existing schemas and incorporating both abstract and concrete operational skills (Özdoğru, 2019; Zhang, 2022).

Lev Vygotsky: Play as a Social Construct

While Piaget focused on the cognitive aspect of play and knowledge construction (Sjoerdsma, 2016), Vygotsky (1986) focused on the social aspect of play and stated that children develop an understanding of society through play. According to Vygotsky, children develop abstract understanding through social interactions that involve language used during play. Young children first internalize language through “private speech” where they engage in monologues while playing. Children’s internal speech later evolves to communication with peers and adults where they learn and practice social contexts that include role-taking and self-regulation (Özdoğru, 2019; Vygotsky, 1986). Vygotsky’s focus on the social engagement of play highlights children’s need for intrinsic motivation to learn about their environment (Vygotsky, 1976). According to Vygotsky, the social process through which children construct knowledge is intrinsically tied to culture and interaction with others (Zhang, 2022). It is through play that children learn to address issues and frustrations using their imagination to renegotiate and refine their circumstances, leading to feelings of control and agency, as well as providing children a greater chance to successfully navigate challenges.

Vygotsky placed particular emphasis on pretend play as a vehicle for children to make sense of the world around them. Vygotsky identified what he calls a “pivot” which refers to a concrete object that is assigned an alternate symbolic representation to engage a child’s imagination (Özdoğru, 2019). The “pivot” allows the child to engage the imagination while having a concrete object that maintains a physical connection to the child’s environment and

progresses from actual objects used by younger children to abstract representations used by older children in their pretend play (Vygotsky, 1976).

Vygotsky (2004) highlighted play as a means for children to address their needs and desires by utilizing past experiences, imagination, emotion, and re-creation (Henricks, 2020) to create and re-create their reality. It is through pretend play that children learn to navigate challenges that can advance learning and development (Özdoğru, 2019) through the “Zone of Proximal Development” (Vygotsky, 1978). Vygotsky describes the zone of proximal development as the balance of skills required versus skills possessed by a child to progress without experiencing too much stress or conversely, exerting too little effort (Vygotsky, 1976). It is in this zone of development where stimuli are introduced, typically through adult mediation, to provide the child scaffolds designed to progress their skills to the next level of difficulty (Dastpak et al., 2017; Vygotsky, 1978).

For Vygotsky, play becomes the modality for children to advance their social skills, improve communication, and cultivate relationships with peers and adults (Henricks, 2020). Vygotsky’s theory of constructivism states that individualized learning occurs when prior knowledge and new experiences converge to bring about new meaning making (Charara et al., 2021). For Vygotsky, active participation and collaboration helps children situate their new experiences into existing knowledge (Angelinah & Shila, 2022). Play becomes the vehicle for children to express their prior knowledge, as well as apply new constructs in a socially interactive environment (Charara et al., 2021). It is through the construction of new knowledge and schemas during play that children create meaningful experiences and new understanding about the world around them (Charara et al., 2021; Henricks, 2020). In the classroom, learning

occurs when the teachers and students engage in social interactions that allow children to gain perspectives and make connections with the world around them (Sitthirak, 2022).

John Dewey: The Process of Play

While Vygotsky focused on the social aspect of play, John Dewey (1910) focused on learning from the processes of play and the development of a “playful spirit” to inform and support purposeful learning (Henricks, 2020). Dewey believed that children reconstruct learning and understanding through lived experiences (Demetrian, 2022), physical interaction with the environment (Sjoerdsma, 2016) and social engagement with community (Walther, 2019) where children learn from concrete experiences that balance academic pursuits with personal interests (Henricks, 2020). For this reason, Dewey advocated for the development of playfulness to support the serious side of learning (Henricks, 2020), for children to develop purposeful activity that engages the whole child’s physical, emotional, creative, intellectual, and social capacities (Skilbeck, 2017).

According to Dewey, play is an expression of children’s “playful spirits” and reflects the seriousness of children’s natural engagement in learning about the world around them (Skilbeck, 2017). For Dewey, play is considered serious business, and he highlighted the need to focus on processes of play and learning rather than the end products. Dewey said that children develop reasoning and critical thinking by actively thinking, re-thinking, and engaging in the process of play, and placed more importance on the experience of play as learning rather than focusing on the result of play which often pertains to products in academic learning (Padmanabha, 2018). According to Dewey, playfulness not only allows children to derive pleasure from their learning, but also supports progress organically (Skilbeck, 2017). Dewey likewise advocated for the

development of playful engagement to pique the interests and encourage inquiry and exploration in children (Henricks, 2020).

According to Bynum (2015), Dewey respected children's intellectual capacities and emphasized the need to cultivate respect for children's "spontaneity and love for play," as well as the need for education to provide natural transitions and continuity between childhood and adult experiences. Dewey stated that children learn social constructs through the complex and multi-faceted process of play which mirrors adult behaviors such as cooperation, problem-solving, and communication (Bynum, 2015). Dewey likewise believed that play becomes the vehicle for children to continue building meaningful knowledge through active engagement, and it is through play that children develop logic, reasoning, and skills for inquiry and experimentation (Givens & Cowden, 2018).

Maria Montessori: Play and Real-Life Experience

Like Dewey, Maria Montessori explored the intersectionality of work and play (Henricks, 2020) and focused on children's play as a vehicle for learning (Walther, 2019). Montessori (1992) observed that children gravitated towards natural and utilitarian types of play (Sjoerdsma, 2016) that mimicked or recreated more advanced or adult life skills than symbolic pretend play. Montessori stated that children enjoy self-directed and firsthand activities that enable them to set goals, choose, negotiate, and engage in social interactions (Henricks, 2020; Kocabaş & Bavlı, 2021; Walther, 2019). Montessori believed in children's capability to learn independently and advocated for self-paced child-directed play and learning (Jones et al., 2019). According to Montessori (1967/1995; 1918/2007a), children will gravitate towards developmentally appropriate activities that satisfy their internal impulses and express their true nature through play.

Montessori postulated that children should be provided with activities that are both playful in nature and realistic in outcomes (Taggart et al., 2018). Although Montessori also believed in playful learning, she emphasized the need for children to have active engagement in learning experiences in a “prepared environment” designed to provide opportunities to interact with carefully selected materials (Musa & Adeyinka, 2021). According to Montessori (1948), for purposeful learning to take place, educators must prepare a child’s environment (Johnson, 2014) to appeal to a child’s sense of their natural environment (Ongoren & Yazlik, 2018). It is through this prepared environment that children experience the freedom to explore and learn through uninterrupted work with minimal adult interference (Kocabaş & Bavlı, 2021). Montessori further believed that children naturally develop movement through self-motivation and free choice through exploration, play, and movement in a safely prepared environment (Gnaoré, 2021).

Loris Malaguzzi: Children as the Constructors of Play

Like Montessori, Loris Malaguzzi, the founder of the Reggio Emilia approach, emphasized the importance of the child's environment, relationships, and experiences in their learning and development (Santin & Torruella, 2017). Malaguzzi believed that children are capable and competent learners, and as such, should be treated as partners and co-constructors of their own learning process (Malaguzzi, 1993; Mphahlele, 2019). Malaguzzi drew from theorists like Piaget, Vygotsky, and Dewey to emphasize the roles of collaboration, communication, and process-based experiential learning in children’s meaning-making and construction of knowledge (Inan, 2021; Malaguzzi, 1993; Malaguzzi, 1994). For Malaguzzi, play is a natural and pervasive childhood experience that supports cognitive, social, emotional, and self-regulatory skills (Inan, 2021; Malaguzzi, 1994).

A key feature of Malaguzzi's approach is the respect and focus on the child's competence and capacity to make choices, negotiate, as well as co-construct learning through questioning and experimentation (Malaguzzi, 1993; Santin & Torruella, 2017). Reggio Emilia's focus on children as the main constructor of their learning experience shifts the attention away from educators as a locus of control and considers educators as facilitators and learning partners (Aden & Theodotou, 2019). This shift in focus offers children the opportunity to take initiative as capable citizens with the freedom to explore and direct their own learning (Vasudevan, 2015). Malaguzzi then assigns the environment as the "third teacher" in which the students explore, investigate, and construct new learning (Malaguzzi, 1993; Santin & Torruella, 2017).

Malaguzzi considered the "*multiple languages of children*" as a critical aspect of learning and expression (Vecchi, 2010). In the Reggio Emilia approach, language extends beyond verbal language and encompasses multi-modal forms of learning, communication, and expression that include visual, mathematical, scientific, and artistic forms of expression and understanding (Santin & Torruella, 2017; Vecchi, 2010). According to Malaguzzi, children express themselves through their "*hundred languages*" which translates into diverse ways of expressing and learning (Boyd & Bath, 2017). Reggio Emilia-inspired schools encourage the use of open-ended activities to stimulate and promote the use of these hundred languages to provoke and encourage multi-faceted responses from learners (Aden & Theodotou, 2019; Moss, 2016).

Types and Benefits of Play

According to Docken (2017), there are distinct types of play that often overlap in terms of action, functions, and benefits. Play-based learning merges play and learning competencies (Taylor & Boyer, 2019) and includes varying levels of teacher involvement (Pyle et al., 2020). During free play, children actively take control of the type of activity, the duration, and social

participation they desire in unstructured and fluid activities (Bay, 2020). Free play is characterized by children's autonomy to control and direct their own play (Taylor & Boyer, 2019) based on their choices, interests, and motivations (Docken, 2017) without guidance from adults (Pyle et al., 2020). Conversely, teachers scaffold and facilitate guided play (Tai et al., 2021) through thoughtfully selected materials or prompts (Taylor & Boyer, 2019) designed to naturally foster child engagement (Docken, 2017) to motivate student-led inquiry and investigation (Lozon & Brooks, 2019).

Whitebread et al. (2012) characterized play by developmental value and significance, and categorized five play types, namely: physical play, object play, symbolic play, pretend play, and games with rules. Whitebread's et al. (2012) play types effectively illustrate how play nurtures a child's wholistic development, targeting physical, mental, emotional, social, and academic competencies (Wang, 2018), thereby making play essential to children's development (Lunga et al., 2022). The five types of play are further embedded in the various categorizations of play by various researchers (Öcal & Halmatov, 2021; Özdoğru, 2019; Ramsden et al., 2022; Reikerås, 2020) and reflect the convergent and overlapping quality of play (Docken, 2017).

Each person has their own play experience and has been exposed to different scenarios of play in various settings. By analyzing various play types from a constructivist lens, existing founts of knowledge are reinforced (Mohammed & Kinyo, 2020) while new perceptions of the play experience create more meaningful understandings for the learner (Arghode et al., 2017). The various play types and their benefits are described based on the constructivist framework by building upon previous knowledge and moving from the simplistic view of play as an activity towards more advanced understanding of the benefits play affords children. A wholistic understanding of the literature is constructed progressively by first explaining play as a practical

experience, then discussing the more complex cognitive or socio-emotional processes involved in play, finally culminating in highlighting its benefits to provide the reader a multi-faceted picture of the play experience. The five categories of play were selected for this literature review to reflect the most basic and common play-based activities in preschool settings.

Physical Play

Physical play involves the use of total body movements in both free and structured activities in various types of settings (Boz et al., 2022). Physical play in the early childhood classroom is commonly observed during outdoor play or recess (Ramdsen et al., 2022) where children freely engage in whole body movements that involve large muscles and require kinesthetic awareness and coordination (Ali et al., 2021; Loebach & Cox, 2020). Gross motor play includes rhythmic activities, exercises, as well as rough and tumble play which involves movements like running, jumping, kicking, play fighting, and wrestling (Docken, 2017; Loebach & Cox, 2020; Lydia et al., 2014). Fine motor play includes activities targeted to strengthen small body movements that require more refined eye and hand coordination such as cutting, sewing, and junk modelling (Whitebread et al., 2017). Rough and tumble play or risky play involves children engaging in challenging and exciting forms of play that involve a risk for physical injury like climbing, swinging, cycling, and using playground equipment (Karaca, 2020).

The World Health Organization (Bull et al., 2020) recommends at least 30 minutes of moderate physical activity daily to help childhood obesity as well as stimulate and support bodily changes and functions such as muscle development, bone strengthening, balance, and coordination (Brown et al., 2020). Aside from physiological and health benefits, engaging children in physical play provides avenues for children to socialize and engage in opportunities to create, plan, and lead during play (Brown et al., 2020; Karaca, 2020, Lunga et al., 2022).

Physical play likewise allows children to push boundaries, explore their environment, learn about risk and safety assessment, and cooperatively engage in problem-solving or strategizing during play (Karaca, 2020; Lunga et al., 2022). Moreover, physical play supports the physiological, cognitive, socio-emotional, and language development of children while enhancing attention, promoting independence, developing positive self-esteem, and encouraging the development of healthy lifestyles (Lunga et al., 2022; Öcal & Halmatov, 2021).

Object Play

Whitebread et al. (2012) describes object play as a way for children to explore the world around them through the manipulation of objects via actions like handling, feeling, or mouthing objects (Özdoğru, 2019). Object play is a form of exploratory play that can passively or actively engage one's senses (Loebach & Cox, 2020; Lunga et al., 2022). Object play allows children to gain firsthand experience interacting with loose parts that can be adapted towards concrete or symbolic play (Johnson, 2013). Through direct manipulation, children develop sensory awareness about the form, function, spatiality, and symbolism of objects they encounter, which leads to the development of metacognition and predictive skills (Johnson, 2013). Object play provides children with opportunities to transform cognitive functions from concrete to abstract as they translate physical observations to metaphysical interpretations in play (Young, 2012). Abstraction in object play leads to symbolic interpretation needed for language and literacy, visual-spatial memory, and problem-solving (Whitebread et al., 2017). In the early childhood setup, object play can be observed through activities that involve the use of manipulatives, puzzles, sensory tables, and loose parts (Docken, 2017; Lunga et al., 2022) in free play or guided play scenarios.

While exploratory object play provides children with the opportunity to manipulate objects around them, constructive play allows children to build or deconstruct objects using a variety of materials (Loebach & Cox, 2021). Constructive play evolves from the exploratory manipulation of objects towards the recreation of functional representations and leads to imaginative transformations where children learn through the process of creating and making (Park, 2019). The process of constructive play is a complex series of decision-making that involves planning, spatial understanding, problem-solving, creativity, and adaptation (Ness & Farenga, 2016). Examples of constructive play include block and Lego play, sand play, constructing forts, creating murals, playdough and manipulatives, box construction, nuts and bolts activities, and woodworking.

Object play progresses from rudimentary sensorial assimilation via exploratory play and evolves towards more complex processes in constructive play and has overarching benefits in a child's cognitive, social, and emotional development (Kodsi, 2022). Through exploratory play, children develop identification, naming, and classification skills, which later progresses into spatial awareness, pattern completion and recognition skills required for constructive play (Reikerås, 2020). These progressive skills set the foundation for the development of logic and reasoning that later support cognitive, quantitative, and mathematical skills (Reikerås, 2020). Mathematical and scientific skills of observation, comparison, planning, assessment, problem-solving and adaptation become organically embedded in object play and provide children with avenues to explore complex processes in meaningful and relatable ways (Kodsi, 2022; Öcal & Halmatov, 2021). Object play becomes a vehicle for children to develop symbolic interpretation as it progresses from concrete to abstract representations which can be further enhanced through the inclusion of pretend play (Park, 2019). Aside from cognitive benefits, object play provides

children with opportunities to interact and communicate with peers and adults, thereby targeting literacy and socio-emotional development (Lydia et al., 2014; Park, 2019).

Symbolic Play

Whitebread et al. (2012) describe symbolic play as play that utilizes the use of sounds, music, language, and art when there are no observable elements of pretend or fantasy play (Loebach & Cox, 2020). Symbolic play is a form of imaginative play where children ascribe an alternate meaning to an actual object to represent something from their imagination without the social aspect of pretend play (Loebach & Cox, 2020). In symbolic play, children incorporate sounds or music in their play to approximate sounds, make up novel words, practice rhythm, and support growing phonological awareness (Whitebread et al., 2017). Music and finger play, making funny sounds, reading, or rhyming are examples of this type of symbolic play. Symbolic play also comes to life when children engage in solo or parallel play while pretending that a block is a moving car, playing with dolls, or bringing inanimate objects to life (Loebach & Cox, 2020). Symbolic play can also include the use of visual media and art as graphic representations of a child's play experience (Whitebread et al., 2017) and can be seen through activities like drawing, creating models, photography, and arts and crafts.

Symbolic play critically supports children's literacy development by targeting auditory and language and linguistic awareness, as well as providing opportunities for phonological practice and increasing children's word banks (Whitebread et al., 2017). Symbolic play also helps improve memory, supports communication skills, and lays the foundation for understanding written symbols for literacy (Pyle et al., 2020). Lastly, the artistic aspect of symbolic play serves as a tool for children to engage in meaning making and visual representation of their experiences in a creative and fanciful way (Whitebread et al., 2017).

Social Play

Social play involves activities that provide children with opportunities to interact with peers and adults to increase socialization and improve awareness of others (Lunga et al., 2022; Whitebread et al., 2012). Social play, also known as pretend play or dramatic play, utilizes children's imagination to re-enact and create social and interpersonal experiences through either realistic or fantastical representations of both concrete and symbolic situations that are reflective of more advanced adult experiences (Loebach & Cox, 2020; Lunga et al., 2022).

Dramatic play provides children with opportunities to re-enact or translate their understanding about feelings and relationships (Peterson & Greenberg, 2017), reflect their understanding of new ideas and experiences (Ceylan & Gök Çolak, 2019), express emotions, practice self-regulation (Veresov & Barrs, 2016), as well as develop language, practice social norms, and learn to negotiate and abide by rules (Onder, 2018) in an imaginative and fantastical way. Children's pretend play themes usually reflect concrete experiences (Hedegaard, 2016) and are grounded (Lunga et al., 2022) through a series of complex interpretations that begin with using real objects, then progressing to props to which they ascribe meaning, culminating in internalized mental processes of mature play (Bodrova & Leong, 2019).

Symbolic thought, meaning making, and social interaction found in pretend play have been linked to creativity and problem-solving (White, 2012), while language processes, symbolic interpretation, critical thinking, negotiating, remembering, and decision-making target cognitive functions (Ahmad et al., 2016; Mohan et al., 2022). Reconstruction during pretend play helps children predict future events, react to unexpected situations, practice error correction, provide creative insights (Vandervert, 2017), and contribute to the development of sign-mediated

cognition and symbolic translations that promote the development of scientific thinking in children (Hao & Flear, 2016).

Pretend play supports language development by stimulating internal sign-mediated higher functions (Kim, 2018) which are needed for symbolic interpretation required for literacy skills of reading and writing (Norling & Lillvist, 2016). Dramatic play helps children gain new perspectives, encounter unfamiliar words and meanings, and practice the use of language in different contexts (Peterson & Greenberg, 2017) as well as engage in new forms of cognitive and social interaction, develop and maintain internal goals, process conflicting environmental signals, foster self-regulation, and practice perspective taking and symbolic and emotional thinking (Germeroth et al., 2019; Mohan et al., 2022).

Pretend play enhances children's cognitive development, language building, socio-emotional engagement, problem-solving, and self-regulation competencies (Ahmad et al., 2016; Mohan et al., 2022; Roskos & Christie, 2011) and provides avenues for children to engage in planning, negotiation, experimentation, and cooperation in a creative setting that can spark curiosity and provide motivation for learning (Wright, 2016). Pretend play, likewise, allows for divergent thinking that helps children practice collaboration and compromise, and foster trust and goal setting (Rowe et al., 2018). Lastly, dramatic play allows children to experience distinct roles, cultures, values, and life skills that translate to practical coping mechanisms for problem-solving, creative thinking, and the development of higher order thinking skills (Ceylan & Gök Çolak, 2019).

Games with Rules

Children express a natural curiosity towards the adult world and try to develop an understanding of the norms and rules that govern society (Whitebread et al., 2012). Rule-based

games can occur organically when children invent, negotiate, and revise their own rules as play progresses, while more conventional forms of rule-based play occur when children engage in conventional or popular games that involve established rules that are universally accepted by participants (Loebach & Cox, 2020; Lunga et al., 2022). Games with rules expose children to structured activities with specific modes of practice and an explicit set of expectations or goals. Examples of games with rules include physical games like tag, hide-and-seek, hopscotch, and a variety of sports activities, while intellectual games include board and card games, as well as computer games (Whitebread et al., 2012).

According to Hunter, Graves, and Bodensteiner (2017), structured and intentional game play engages children in opportunities to develop awareness for meaning making. Game play helps children understand rules and conventions and offers opportunities for social development as they engage with other players with different perspectives and experiences (Whitebread et al., 2012). Furthermore, rule-based play helps children learn about society and cultures as they actively communicate and practice cooperation, empathy, self-regulation, negotiation, and problem-solving (Loebach & Cox, 2020).

From a cognitive perspective, games with rules utilize executive functions by presenting children with opportunities to focus, analyze, maintain, or modify game play. Rule-based game play also entails the use of working memory and requires the ongoing application and construction of knowledge to observe and understand, as well as anticipate or respond to constantly evolving situations (Petty & DeSouza, 2012). The engagement of executive functions contributes to the development of higher order thinking skills necessary for scientific inquiry, mathematical learning, and literacy (Pyle et al., 2020; Reikerås, 2020).

Converged Play

The advent of the tablet in 2010 introduced a new modality for play and learning in the field of early childhood education (Edwards et al., 2020). The boundaries between traditional forms of play and technology enhanced playscapes have increasingly become blurred as children seamlessly navigate between physical and digital domains (Lundtofte, 2020) due to the ubiquitous presence of digital technology in their daily lives (Edwards et al., 2020). Converged play offers perspectives on how the experience of digital natives immersed in digital technology and media (Edwards et al., 2020) opens new avenues for considering and enacting play-based learning (Schriever et al., 2020).

Loebach and Cox (2020) describe three digital play sub-types according to the level of engagement. Device play involves the use of a digital device without outside interaction like playing games on a phone or listening to music, while augmented digital play utilizes technology to augment physical play (Loebach & Cox, 2020). Popular examples of augmented game play include Pokémon Go and using QR codes to access and transmit information from the gadget to the physical environment. The third type of digital play is embedded play where the participant interacts with technology within the playscape without the use of a personal device. This type of play includes motion sensors, sounds and lights displays, and interactive screens embedded within the physical environment where play takes place (Loebach & Cox, 2020).

Meanwhile, Flynn et al. (2019) categorized digital play based on the levels of interactivity and engagement between the child, the technology, and the environment. Receptive interactivity occurs when a child receives information via activities like watching a YouTube video or enjoying a children's show on a digital device and is a passive form of engagement where children process information without actively responding. Manipulative interactivity

involves behavioral engagement and movement required for tablet play or Virtual Reality games that engage a child's whole body and sensorimotor faculties. Lastly, contingent interactivity involves meaningful engagement between the user and the system with more detailed feedback and communication required from the participants (Flynn et al., 2019).

Converged play becomes multi-modal when participants simultaneously use various modes of communication, digital technologies, and media in their play experience (Edwards et al., 2020). The ability of converged play to unify local experiences with global popular practices, as well as its capacity to support global-local communication and information sharing opens greater avenues for exposure and learning in the early childhood setup (Aslan et al., 2022). Meanwhile, the traditional-digital characteristic of converged play enables users to synthesize digital and physical resources to provide engaging play and learning experiences (Edwards et al., 2020).

Converged play supports children's cognitive development by engaging curiosity and focus while stimulating creativity (Lundtofte, 2020) and digital literacy (Schriever et al., 2020). Collaborative digital play supports the development of scientific and mathematical skills, as well as enhances communication, cooperation, critical thinking skills in young children (Schriever et al., 2020). Additionally, converged play promotes social and emotional development by allowing children to practice perspective-taking and improve socio-cultural understanding (Edwards et al., 2020; Lundtofte, 2020).

Overall Benefits of Play

The diverse types of play and their benefits often overlap (Docken, 2017) and extend into various play and pedagogical practices in early childhood education. According to Pyle et al. (2020), the benefits of play can be divided into two categories: developmental learning and

academic learning. Developmental learning includes areas of physical, socio-emotional development, and self-regulation while academic learning includes competencies in literacy, science, and numeracy (Pyle et al., 2020). Play is found to be highly effective in supporting academic, cognitive, and socio-emotional development (Taylor & Boyer, 2019).

Developmentally, play gives children opportunities to enhance their communication skills and enrich their experiences with peers and adults while exposing them to social norms and rules (Lunga et al., 2022; Lydia et al., 2014; McGinn, 2017; Taylor & Boyer, 2019). Children learn to collaborate and cooperate through play, as well as practice perspective taking, problem-solving, conflict resolution, turn taking, sharing, and taking responsibility (Docken, 2017; Guirguis, 2018; Lunga et al., 2022; Lydia et al., 2014; Pyle & Danniels, 2017; Pyle & Deluca, 2017; Taylor & Boyer, 2019). Play helps children develop self-regulation which can affect language, cognition, and learning (Ernest et al., 2019). Play has been found to lower toxic stressors and reduce emotional pressures thereby providing holistic support for wellness and development (Ernest et al., 2019). Aside from socio-emotional and self-regulation competencies, play promotes an active lifestyle (Lydia et al., 2014) which helps improve motor development, dexterity, and enhances overall health (Lydia et al., 2014; Öcal & Halmatov, 2021).

Play has a significant role in promoting mathematical understanding and supporting literacy, and cognition (Bay, 2020; Docken, 2017; Taylor & Boyer, 2019). According to Taylor and Boyer (2019), kindergarteners with low mathematical competency are at a higher risk of having poor mathematical skills later. Children are exposed to mathematical, scientific, and literacy concepts through play which develops their concrete thinking and lays the foundation for symbolic translation, abstract thought development, reading and mathematical readiness, and

overall cognitive functions (Lunga et al., 2022; Lydia et al., 2014; McGinn, 2017; Öcal & Halmatov, 2021; Taylor & Boyer, 2019).

Contemporary Issues in Play

The changing nature and understanding of play have impacted its practice and perceptions within the field of early childhood education (Dockett, 2010). In 2018, the Lego Foundation, in support of UNICEF (2018), identified a lack of understanding about the value of play, lack of educator training, incongruent standards, and large class sizes as some of the issues that affect play-based learning. Dockett (2010), on the other hand, cited educator and caregiver beliefs and practices, growing diversity, socio-cultural issues and inequities, and technological advancements as issues that affect the practice of play in the early years. The onset of the Covid-19 pandemic presented new challenges to pedagogical practices and required educators to reimagine the play-based nature of preschool (Gomes et al., 2021).

Contemporary issues in play-based learning are discussed in this section to provide context about the practices and challenges encountered in the early childhood classroom. A constructivist framework helps present the current issues from an experiential, practical, and more meaningful point of reference (Arghode et al., 2017; Huang, 2002). Understanding playscapes from a constructivist frame can help reconstruct perspectives and identify gaps in the literature for future research for pragmatic and realistic solution-building (Huang, 2002; Mohammed & Kinyo, 2020). A constructivist perspective is utilized to frame the literature by first introducing the pre-existing factors that contribute to the problems and issues related to play, then moving towards identifying the current conversations about the related topics to illustrate the continuity of the issues of play in the current socio-cultural and geo-political landscapes.

Loss of Play

Play and play-based pedagogies have been subject to debate over the past years. The increasing levels of school and teacher accountability for students to engage in high stakes testing have resulted in top-down pressure, while accountability practices and sanctions have created undue pressure for early childhood educators and children alike (Parrott & Cohen, 2020). According to Little and Cohen-Vogel (2016), Ronald Reagan's National Commission on Excellence in Education's report *A Nation at Risk* resulted in a series of educational reforms targeting academic standards and accountability that has continued to affect the educational landscape in the United States for decades and resulted in a push-down to align early childhood competencies with the academic content of higher grades. Consequently, the No Child Left Behind (2001) legislation elevated pressures for high stakes testing, resulting in higher academic expectations that have trickled down to the younger years and led to substantial curricular and pedagogical changes in the early childhood classroom (Little & Cohen- Vogel, 2016; Lynch, 2015). A similar trend in raising literacy and numeracy standards has been observed globally, where the preschool years are seen as preparation for school and academic readiness (Stephenson, 2016).

Despite the American Academy of Pediatrics (2013) reminders about the importance of play and recess in children's development, the academic thrust of schooling has reduced the amount of play within the early childhood classroom in favor of academic instruction. Early childhood educators grapple with the incongruencies of focusing on providing child-centered play-based learning versus complying with data-driven outcomes (Stephenson, 2016). They likewise experience the pressure to prepare children for academic readiness from colleagues who teach higher grade levels (Lynch, 2015). Barriers towards play include varying leadership

support, systemic issues in equity and implementation, prescriptive curricular expectations and practices, parental expectations, classroom management and organization issues, and colleague expectations and perceptions (Dockett, 2010; Little & Cohen-Vogel, 2016; Lynch, 2015).

Measures undertaken to address the Covid-19 pandemic have contributed further to the loss of play in the early childhood classroom as children lost their natural play and learning environments, resulting in diminished play opportunities, disruption in daily routine, higher media use, and increased isolation and mental health issues (Poulain et al., 2021). While an increase in outdoor activities was reported, a congruent decrease in indoor play and socialization activities was observed throughout the pandemic (Poulain et al., 2021).

Perceptions on the Value of Play

There are varying perceptions and understandings about play in education that have shaped public discourse about the value of play in early childhood education (Carolan et al., 2021). A lack of consensus about the definition of play has led to conflicting opinions about play-based learning and its capacity to address academic expectations and state standards (Khalil et al., 2022; Pyle et al., 2020). The push for academic learning has resulted in a misalignment between educator beliefs and practices wherein personal teaching philosophies contradict curricular and pedagogical mandates (Pyle et al., 2020). Despite growing evidence that playful learning approaches can enhance academic learning (Benes et al., 2016; Edwards, 2017; Khalil et al., 2022; UNICEF, 2018), play-based advocates have shared their perception that not being taken seriously by colleagues who teach in the higher grade levels, as well as being blamed for the perceived academic performance issues of children, are barriers in play-based learning (Khalil et al., 2022). Teachers from higher grade levels perceive children coming from play-based learning to be trailing behind in school readiness skills, and often push for further

reduction or removal of play-based activities in early childhood education (Lynch, 2015). Pyle et al. (2020) have echoed these findings and stated that conflicting beliefs have contributed to a misalignment in educational and professional practices and preparation.

Aside from the conflicting perceptions among educators, early childhood educators also cite a lack of training and development about play and play pedagogies as a barrier towards understanding the critical value of play in children's learning and development (Pyle et al., 2020). Aside from conflicting educator perspectives, public discourse and media narratives have influenced parental perceptions and understanding of the value of play in education (Pyle et al., 2020). The dichotomous understanding of play and learning coupled with different types of play and pedagogical practices, as well as a lack of guidance and understanding about the critical role of play, contribute to parental perceptions of play as being barriers in their children's learning (Carolan et al., 2021; Pyle et al., 2020). Parents tend to believe that play and learning are separate from each other, with learning taking precedence over play to prepare children for further education (Carolan et al., 2021). Because of this belief, play has increasingly lost its spontaneity and natural occurrence in many households and communities (Lunga et al., 2022). This devaluation of play has led to parental pressures for early childhood educators to veer away from play-based pedagogies in favor of direct instruction or academic teaching in early childhood spaces (Carolan et al., 2021; Dockett, 2013; Lynch, 2015; Pyle et al., 2020).

The onset of the Covid-19 pandemic brought about drastic changes to educational delivery models and resulted in school closures and online learning (Rogers, 2022). Issues in accessibility and the loss of learning opportunities during the pandemic have contributed to a focus on learning loss which further marginalizes play-based pedagogies in favor of academic learning (Rogers, 2022). According to King (2021), play was not a critical point of consideration

due to the immediate health and safety concerns of the pandemic, thereby further impacting play-based early childhood delivery models and learning experiences.

The Risky Business of Play

The pedagogical benefits of risky play have been widely acknowledged and researched (Drew, 2019; Kleppe, 2018). Research indicates that children reap positive benefits of risky play in weight maintenance, cardiovascular health, improved mental health, cognition, and social competence (Sandseter et al., 2020). Risky play helps children learn risk assessment and problem-solving, as well as provides opportunities for children to develop confidence and the capacity to push boundaries and engage in unfamiliar experiences (Kleppe, 2018). Despite the benefits, concerns about risky play, as well as risk aversion and injury and litigation practices, have contributed to the decline of risky play in early childhood spaces (Drew, 2019; Sandseter et al., 2020). Safety concerns have discouraged play in natural outdoor spaces in favor of artificial resources that are highly regulated and controlled by adult facilitators (Josephidou & Kemp, 2022).

Limiting factors for risky play include rigid regulations, limited affordance of space and equipment, teacher and parental perceptions about risky play, and lack of training and development in facilitating effective risky play (Ali et al., 2021). Aside from these factors, the changing landscape of childhood play has shifted from physically active play to more sedentary lifestyles due to the increased technological advances that have made their way into play (Sandseter et al., 2020). Safety factors and concerns over “stranger danger,” physical injury, rapid urbanization, and elimination of open playscapes, and climate concerns have likewise affected how teachers and parents allow risky play to occur (Sandseter et al., 2020).

Consequently, play has become heavily regulated and restricted in efforts to eliminate risk rather than balance risk and reward (Josephidou & Kemp, 2022; Waite et al., 2014). The prevalence of a compensatory and litigious culture has led educators to focus on risk mitigation not only to protect children, but also to protect themselves and schools from liability (Drew, 2019). Adult-imposed order in children's play has resulted in a preference for highly curated "safe" play spaces and highly guided activities that create the impression of order and control, thereby taking away from children's organic free play experience (Drew, 2019).

The Covid-19 pandemic has further contributed to minimization of risky play due to successive periods of confinement to homes and the lack of access to safe public spaces (Rogers, 2022). Children from disadvantaged backgrounds were likewise found to spend less time engaging in physical activities due to the lack of affordance of space (Rogers, 2022).

Racial and Socio-Economic Inequities in Play

Despite being identified as a basic right of a child, inequities in play remain an issue for marginalized groups (Lydia et al., 2014). Access to safe and accessible play spaces due to a lack of community development and the privatization of play have made access to play elusive and problematic for families with low-income status (Lydia et al., 2014).

The world-wide trend of privatization of early childhood education and care provisions has resulted in a shift towards a demand-driven and cost efficiency driven market (Van der Werf et al., 2020). Rapid globalization has led to neoliberal reforms that shifted the education landscape from a service and supply model (Van der Werf et al., 2020) towards privatization and consumerism (Gupta, 2018). The childcare market is one of the fastest growing sectors worldwide, with neoliberal reforms towards market-driven standards of high stakes testing and standardization affecting education systems (Van der Werf et al., 2020). The effects of

neoliberalism have led early childhood facilities to re-market themselves as businesses (Gupta, 2018) and has affected countries such as the US, UK, Netherlands, Iceland, China, Singapore, India, and Kenya (Dýrfjörð & Magnúsdóttir, 2016; Gupta, 2018; Van der Werf et al., 2020).

The neoliberal view that human life could be effectively regulated by a set of economic transactions (Dýrfjörð & Magnúsdóttir, 2016) has reduced early childhood education from pedagogical and philosophical practices towards a formulaic and standardized set of benchmarks of performance (Van der Werf et al., 2020). Privatization practices appear to offer the freedom of choice for parents and caregivers to practice agency and choice regarding their child-care options (Gupta, 2018). In the US, neoliberal views of prioritizing personal choice and responsibility (James, 2021) and valuing the collection of goods in contrast to the collective good (Dýrfjörð & Magnúsdóttir, 2016) has pushed education towards market-driven practices.

Van der Werf et al. (2020) found a strong correlation between fee-based private childcare centers and the socio-economic status of the children attending these institutions where families from a lower socio-economic status experienced segregation and lower quality services than wealthier counterparts who can afford better options for their children. White families use school choice to hoard resources that exclude families of color from equitably gaining access to similar types of services (James, 2021). As a result, parents from a lower socio-economic status struggle to afford alternative safe spaces for their children to play and experience logistical, scheduling, and financial issues that interfere with their ability to avail of quality childcare services (Nichols, 2020).

The disparities in quality and access not only vary depending on zip code but also rely heavily on economic and racial issues wherein white students are found to have more access to higher quality early childhood and care options, thereby creating a “racial monopoly” and

contributing to furthering racial and economic disparities (James, 2022). Aside from issues in access, schools in high poverty and areas with a high minority population have reduced recess and appropriate spaces or equipment for play (Lydia et al., 2014). Segregation of neighborhoods directly impacts the distribution of resources and funding which result in a scarcity of safe, well-maintained recreational spaces in historically marginalized and under-resourced communities (Pinckney et al., 2021). Because of these factors, children of color, particularly Black children, have been found to spend less time in play than their white peers (Lydia et al., 2014). While public play spaces are available for everyone to enjoy, Black children face inequitable play experiences due to issues in racial profiling (Pinckney et al., 2021). Similarly, disadvantaged children experiencing poverty, neglect, issues of migration and displacement, abuse, and health related issues often suffer from the impacts of social exclusion that lead to decreased access to quality learning and play experiences (Majcen & Drvodelić, 2022).

Pinckney et al. (2021) further stated that Black children, particularly Black males, experience higher levels of punitive and policing behaviors because of the unjust labeling of the Black child as more aggressive or disruptive than their white counterparts. The harmful and false narrative about Black children being less literate and thereby less teachable has resulted in continuous policing even in spaces of play and learning. Consequently, Black children learn from an early age to modify their play and behavior to ensure their safety in spaces where they are seen as undeserving of the freedom to play (Pinckney et al., 2021).

The negative impacts of the Covid-19 pandemic have been observed to disproportionately affect ethnic and racially marginalized communities (White et al., 2021). School closures and shifts in pedagogical strategies during the pandemic have affected the availability and reliability of critical programs, services, and supports previously available to

children from resource challenged backgrounds (White et al., 2021). Lower to middle income households that have been affected financially by the pandemic struggle most with the lack of quality child-care services due to the notable absence of affordable early childhood programs (Malik et al., 2020). Meanwhile, Black and Hispanic communities were found to be more likely to experience child-care deserts than white counterparts who have the financial capacity to access better educational opportunities for their children (Malik et al., 2020). The threat of economic recession further exacerbates childhood poverty and affects learning outcomes as the gap in literacy and numeracy between children living in poverty and their wealthier counterparts continues to widen (Van Lancker & Parolin, 2020).

Play and Trauma

Trauma is defined by the American Psychiatric Association (2013) as natural or manufactured experiences that expose individuals to acute stress, endanger mental and physical health, or cause death and severe injury. A study conducted in 2012 showed that adverse childhood experiences (Phillips et al, 2022) such as exposure to abuse, neglect, violence, serious family issues (Felitti et al., 1998), poverty, homelessness, inequities, and racism (National Scientific Council on the Developing Child, 2020) have affected 35 million children in the United States (National Survey of Children's Health, 2012). According to researchers, children from minority populations are more likely to have experienced early trauma due to developmental and sociological factors such as poverty, racism, and immigrant status (Carolan & Connors- Tadros, 2015; Gilliam et al., 2016). Trauma not only leaves unseen scars on the brain (Sandi, 2013) but also affects brain development and executive functions, which consequently adversely affects a child's ability to learn and form connections (Craig, 2016; Phillips et al.,

2022; Perry & Szalavitz, 2017; RB- Banks & Meyer, 2017; Treisman, 2017; Wolpow et al., 2016).

Play serves as an outlet for children to process and understand experiences in their daily lives. Young children who have difficulty verbally expressing themselves use play as a medium of expression and meaning making to cope with stressors (Guirguis & Longley, 2021).

According to UNESCO (2019), play helps children reduce stress by allowing them to create a sense of autonomy and control over situations that they may not have the developmental capacity to fully process or understand. Engaging in dramatic and creative play allows children experiencing trauma to convey emotions (Guirguis & Longley, 2021), transform anxieties, and gain perspective, recreate scenarios, and process experiences (Feldman, 2019). Moreover, creating movement through play helps children diffuse and redirect the physiological and psychological effects of trauma such as tension, fear, anxiety, and anger (RB-Banks & Meyer, 2017) as a means of emotional survival (Sutton- Smith, 2016).

The forced isolation and school closures brought about by the Covid-19 pandemic not only deepened already existing inequities in early childhood education (Burleigh & Wilson, 2023) but also affected the social engagement and access to play for children, creating a greater risk for trauma (Guirguis & Longley, 2021). The loss of play opportunities and isolation results in behavior changes such as lack of impulse control, difficulty with self-regulation, anxiety and/or aggression (Guirguis & Longley, 2021) which can translate to challenging behavior in the classroom. Although research on the mental effects of the pandemic on young children are emerging, the long-term effects of the pandemic on the well-being of children remains to be seen and will need to be addressed through future research (Linnavalli & Kalland, 2021).

The Digital Play Debate

The use of digital technology has become ubiquitous in children's lives despite contradictory guidelines and recommendations from various stakeholders about the proper way to integrate technology use in children's learning (Gjelaj et al., 2020). The American Academy of Pediatrics, the United States Department of Education, and the National Association for the Education of Young Children recommend the use of developmentally responsive and appropriate technology that utilizes interactive, exploratory, and communicative engagement with young children and advise against prolonged technology use for children under two years of age, as well as discourage passive and non-interactive technology use for children between the ages of two to five years old (AAP, 2016; DoED, 2016; Guernsey, 2017; NAEYC, 2012). These guidelines contradict actual digital use in homes and schools, as well as minimize the documented benefits of technological play in children's learning (Gjelaj et al., 2020; Kerker et al., 2022) while highlighting the negative effects of technology use, thereby creating anxieties and disparities in the digital learning conversation (Schreiver et al., 2020).

The contradictory guidelines have created a divide among educators and caregivers' beliefs and perceptions regarding the use of digital technology in early childhood education. While most educators believe that young children need firsthand interactive experiences to learn (Alberola- Mulet et al., 2021), many teachers acknowledge that technology provides children with alternative ways of learning and provides novel opportunities for exploration and communication (Gjelaj et al., 2020). Despite an increase in educator openness to incorporate technology in pedagogy (Pila et al., 2018), concerns about technological literacy, the lack of developmentally appropriate materials (Dunst et al., 2019), insufficient training and support (Cam & Cam, 2023), as well as issues around equitable access (Blackwell et al., 2013) continue

to affect teacher perceptions about technology use in children's learning. Many early childhood educators have responded to the inevitable presence of technology in early childhood settings by shifting their focus towards understanding how to use technology efficiently to support children's learning (Aktas, 2022; Blackwell et al., 2014; Otterborn et al., 2019).

In contrast, parents are becoming increasingly more open to using digital technologies with young children, with many parents believing that media and technological exposure can be beneficial to their children's development, with parental attitudes positively correlating to their own technological habits and experience (Gjelaj et al., 2020). Despite parental belief that digital exposure can benefit children's development, many caregivers are concerned about the detrimental effects of technology use such as developmental delays, sleep and weight problems, behavioral issues, and exposure to inappropriate content (Gjelaj et al., 2020).

Educational institutions worldwide utilized technology to address educational needs during the onset of the Covid-19 pandemic, making technology an inevitable resource during the global crisis (Cam & Cam, 2023). The context of early childhood education during the Covid-19 pandemic has served to further the divide between advocates of traditional play-based learning and believers of modern digital play. Aside from socio-economic concerns, parents from resource challenged communities were found to have less time to engage with their children at home due to work-related obligations and were likewise found to be less confident in their abilities to help their children accomplish school-related activities at home (White et al., 2021). In a direct contrast to digital use guidelines, children experienced an increase in technological use during the pandemic, with children from resource challenged backgrounds exhibiting higher daily screen usage (Rogers, 2022). Moreover, the shift to online learning at the beginning of the pandemic further amplified the already inequitable distribution of resources in technological

access and connectivity for children living in poverty, thereby further contributing to the learning gap between these students and their wealthier counterparts (Andrew et al., 2020; Van Lancker & Parolin, 2020; White et al., 2021).

Playing During a Pandemic

The Covid-19 virus first emerged in Wuhan, China in December 2019 and was quickly declared a pandemic by the World Health Organization (WHO, 2020). By March 2020, around 850 million people worldwide were affected by the virus, prompting governments and health agencies to enforce lockdowns and orders for physical distancing requiring educational institutions to adjust educational delivery models to comply with health regulations (UNESCO, 2020). The immediate and most practical response was to move education online and rely on digital and mobile technologies, as well as internet connectivity to communicate and interact (Cam & Cam, 2023; Hebebcı et al., 2020). While Johnson et. al. (2020) maintained that using online education during times of unrest or disasters is not new, recent research shows that educators consider online learning to be an emergency response that cannot be as effective as in-person education and should be considered an interim solution (Hebebcı et al., 2020). The pandemic is still an ongoing experience that is directly affecting traditional in-person educational delivery models. While online learning is a viable response to the pandemic, remote learning cannot replace the need for human contact and interaction (Pascal & Bertram, 2021) particularly for early childhood communities where interpersonal communication and firsthand play and learning experiences are crucial to children's overall well-being and development (Singh et al., 2020).

The play-based nature of preschool has required educators to reimagine pedagogical practices to safely comply with the health and safety standards during the Covid-19 pandemic

(Gomes et al., 2021). To address pandemic restrictions, educators in areas with suitable outdoor spaces brought play outdoors since virus transmission occurs more easily within confined spaces. Conversely, highly urban locations that do not have the luxury of wide-open spaces moved outdoor play indoors to provide children with highly regulated and sanitized spaces in which to play (Gomes et al., 2021). A marked decline in group-based cooperative and sensory play was observed and transitioned to individualized play activities where children were required to adjust to staggered and timed play schedules, restricted to specific locations and materials, as well as trained to practice hand-washing and other hygienic practices (Gomes et al., 2021). Despite being thought to be less at risk from the virus, children's social interactions were curtailed to prevent transmission to other members of the community (Rogers, 2022). These adjustments allowed educators to engage in proper space and material sanitation which they incorporated into play practices to teach children awareness and understanding about the virus (Gomes et al., 2021).

A study done by Pascal and Bertram (2021) showed that children used play to display their understanding about the pandemic and have shown richer and deeper play behaviors, often drawing upon Covid related experience such as mask wearing, sanitation practices, social distancing, and bereavement. Educators have shared that the nature of play has changed to adapt to the restrictions of the pandemic and showed less spontaneous play and more outdoor play, as well as smaller group, focused, or solo play (Pascal & Bertram, 2021). Although early childhood settings have tried to minimize disruptive changes to children's routines, Covid related requirements continue to affect play-based learning environments (Pascal & Bertram, 2021).

While some research has begun to shift its focus to children's return to schools, most of the research on learning during the Covid-19 pandemic has focused on online pedagogy, and

rarely reflects the realities of play-based education during this crisis (O’Keeffe & McNally, 2021). Similarly, little has been written about how the lockdown and pandemic restrictions have affected play in both home and school settings (Rogers, 2022). Furthermore, current research has failed to include the perspectives of children regarding their play experiences during the pandemic (Rogers, 2022). As educational institutions adapt to the ongoing pandemic, early childhood educators have expressed uncertainty about transitioning back to in-person learning and have emphasized the need for greater guidance and support to effectively implement play-based strategies during the ongoing pandemic (O’Keeffe & McNally, 2021). Teachers expressed concerns about incorporating re-socializing activities and safety management practices back into their classrooms (O’Keeffe & McNally, 2021) and noted a lack of support in play-based practices because play was not considered to be critical to children’s learning during the pandemic (Rogers, 2022), particularly when the focus was on safety and “learning loss” (O’Keeffe & McNally, 2022).

Conclusion

Play and play-based learning present critical opportunities for children’s personal, social, and cognitive development (Pyle & Danniels, 2017). Developing a concrete understanding and definition of play and play-based learning can help educators and caregivers develop meaningful opportunities to support and engage young children in their wholistic development (Pyle & Danniels, 2017). Understanding the broad contexts of play, including contemporary issues in play-based learning, can support educators in addressing critical issues relevant to current social and cultural contexts. Local and international imperatives to improve early childhood learning experiences necessitate the reconceptualization of play to incorporate modern play modalities to

address the changing landscape of play and learning (Dockett, 2010) while challenging educators to re-examine perceptions and practices of play within their own pedagogies.

Considering the current socio-cultural as well as historical context, researchers have advocated for the recognition and further study of new play pedagogies to reflect awareness and understanding of issues related to inequity and diversity (Dockett, 2010). The current social context, specifically the Covid-19 pandemic, created a new social situation that has directly impacted play, and requires educators to re-imagine playscapes to cope with crisis situations (Gomes et al., 2021). While literature on learning during the pandemic is now emerging, the field of early childhood education remains severely underrepresented (Dayal & Tiko, 2020) and rarely reflects play-based experiences (O’Keeffe & McNally, 2021). Despite the critical need for clear guidance, recommendations about play from professional, governmental, and global health organizations remain unchanged. Aside from the lack of updated mandates from official sources, current research trends focus on online learning modalities and reflect minimal actual play-based learning experiences from the perspectives of educators, caregivers, and children alike (O’Keeffe & McNally, 2021). Understanding the actual experience of modern play through a constructivist lens can contribute to improving pedagogical practices and can likewise provide insights into potential issues and challenges that need to be addressed through further studies and research.

CHAPTER 3

Methodology

The Covid-19 pandemic has forced schools and educators to rethink educational delivery modalities. In the preschool sector, this translates into a rethinking of play and play-based pedagogies as a main form of educational delivery to young children. This study aims to draw upon aspects of phenomenology to explore the issues, challenges, and experiences encountered by private preschool teachers engaged in play-based learning during the time of the Covid-19 pandemic.

This chapter discusses the rationale and methodology around which the study was designed. A description of the research setting provides the background and context from which the research problem was drawn. The research sample and data collection methods and procedures, data analysis methods, as well as participant protections and involvement are also discussed in this chapter. Criteria assessing validity as well as the limitations and delimitations of the study are likewise discussed in this section.

Rationale for Research Design

Phenomenology is a method in qualitative research that focuses on participant experiences based on a specific event or phenomenon (Merriam & Grenier, 2019). A phenomenological study allows for the in-depth exploration and reflection on a lived experience and focuses on the interpretative and meaning-making process of this lived experience (Frechette et al., 2020). The phenomenological method is grounded in constructionism wherein understanding and knowledge are constructed based on an individual's experience of a specific event or situation (Flynn & Korcuska, 2017), all of which are subject to social contexts, interpretations, and personal embodiment of the lived experience (Frechette et al., 2020). A

constructivist point of analysis considers the multiple interpretations of an event based on personal constructs that can evolve over time (Bloomberg & Volpe, 2018). Engaging in phenomenological inquiry helps the researcher to uncover implicit phenomena through in-depth analysis and thematic coding (Frechette et al., 2020), to better understand the essence of a lived experience (Flynn & Korcuska, 2017). Moreover, phenomenology requires intellectual engagement in meaning making to understand a lived experience on an explicit level of consciousness (Qutoshi, 2018). The main goals of phenomenology are to describe the manifestation of an experience, broaden the perceptions and understanding of a phenomenon, create reflections about the experience, construct meaning from the new knowledge constructed (Neubauer et al., 2019; Qutoshi, 2018), and explain how individuals make sense of a collective experience (Yildirim, 2021). Drawing on phenomenology, this study aimed to better understand the experience of preschool educators working in a large-midwestern urban context all of whom engaged in play-based learning during the Covid-19 pandemic.

A phenomenological method was appropriate for this study based on the specific parameters and phenomenon presented. The parameters of being engaged in play-based learning modalities within the period of the Covid-19 pandemic limited the study to lived experiences within these specific phenomena. The focal point of the study highlighted the lived experiences of participants (Merriam & Grenier, 2019) to better understand how preschool teachers re-imagined play in their classrooms, as well as explored the participants' affective emotions within the specific phenomena of engaging in play-based learning during the time of the Covid-19 pandemic. This study aimed to discover shared educator experiences, as well as draw out insights on innovative practices that can potentially contribute towards improving pedagogical practices. Furthermore, the study sought to identify critical issues and challenges encountered by early

childhood professionals via their collective and individual experiences to highlight similarities and differences in their experience of play-based learning during the pandemic.

This study was timely given the timeline and ongoing nature of the pandemic. Existing literature has largely addressed issues and experiences of educators from the secondary levels to higher education, but rarely reflected experiences of early childhood educators, leaving the field of early childhood education, particularly the preschool years, underrepresented (Dayal & Tiko, 2020). Phenomenological studies not only target specific constructs but also focus on the untold stories and experiences of underrepresented individuals or communities (Johnson & Parry, 2015). Therefore, using a phenomenological method to tap into the untold stories of preschool teachers who engage in play-based learning pedagogies during the pandemic was appropriate for this study.

Research Setting and Context

Three private urban play-based preschools located in a large Midwest city were included in this study. All three institutions identified themselves as authentic play-based institutions that cater to predominantly white, middle to upper middle-class families. Smart Beginnings Preschool utilizes the Reggio Emilia approach to combine inquiry-based learning and language acquisition. Bright Child Academy, on the other hand, is a progressive project-based inspired institution, while Progressive Play Learning Center's curriculum draws from a mix of play theorists, such as Piaget, Vygotsky, Dewey. Both Bright Child Academy and Progressive Play Learning Center likewise identify themselves as Reggio-inspired institutions. All three schools have small class sizes with an approximate 8:1 student to teacher ratio for the larger classes, and an approximate 4:1 student to teacher ratio for smaller class sizes. The schools in the study cater to children between the ages of two to six years old and prioritize a child-centered approach to

learning, emphasizing play and experiential learning as important components of a child's development. All three institutions are private tuition-based play-based preschools located in a large Mid-west city that cater to predominantly white, middle to upper middle-class families who have the purchasing power to choose specialized play-based institutions for their children.

Research Population, Sample, and Data Sources

Private preschool educators engaged in play-based learning pedagogies throughout the COVID-19 pandemic were recruited using purposive sampling where participants were selected based on specific guidelines that highlight their unique experiences (Billups, 2021). The purposeful selection of participants, as well as of the materials and documentation allowed the researcher to gather responses (Creswell, 2009) that targeted specific experience, pedagogical, and time-bound questions. Participants were pooled from a variety of sources such as connections with online early childhood groups and forums, neighborhood and professional connections, and individual recommendations. E-mail invitations to recruit participants were sent to local school administrators to discuss the potential of inviting teachers in their institutions to participate in the study. Local school visits were conducted as needed by the researcher to speak with school leaders in person to invite potential participants to join the study. Participants included teachers and administrators who worked with a specific age-range of two- to six-year-old preschool children for their student roster. The school administrators served as gatekeepers for the dissemination of information during the recruitment phase of the study. School administrators were provided with recruitment information which they disseminated to potential participants via e-mail. The interested participants were then requested to contact the researcher directly via e-mail to express intent to join the study. Interested participants who responded to

the invitation were screened to ensure that they fell within the selected parameters of the study.

The parameters for participant selection were as follows:

1. Participants should have been engaged in play-based teaching pedagogies between the years of 2019 to 2023 to reflect pre-pandemic and subsequently, pandemic-related teaching experiences.
2. Participants should come from a play-based private preschool or institution within a large Midwest city.
3. Participants should be working with children within the age ranges of two to six years old throughout the pandemic.

Although the study is geared towards teacher experience, the researcher opted to include representative administrators from each school to provide supporting information about the experience of educators during the pandemic. To ensure an equitable representation, an administrator and two preschool level educators from each participating school were recruited for the study based on the specific parameters outlined above for a total of nine participants. Participant parameters were limited to the aforementioned criteria to ensure a sample familiar with the issues and challenges experienced by preschool educators who are engaged in play-based learning during the Covid-19 pandemic.

Since interviews centered around personal teaching experiences during the pandemic, the researcher acquired the full consent of participants regarding any information gathered from various data collection methods following IRB approval and prior to the start of any data collection. Data included video recordings of the online meetings, chat and e-mail transcripts, quotes, any digital and non-digital artefacts such as curriculum, class schedules, photos, and/or lesson plans before and during the pandemic, as well as correspondence between the researcher

and participants. All data sources were subjected to participant re-checking before use to maintain reliability and integrity throughout the process of information sharing. Participant anonymity was fully protected by using pseudonyms, and no identifying information was used in the study.

Data Collection Methods

Merriam and Grenier (2019) state that the phenomenological interview is a key method of data collection that “attempts to uncover the essence... of the meaning of the experience for those involved,” wherein the researcher focuses on the lived experience or processes of the participants (Merriam & Grenier, 2019, p. 87-88). Employing phenomenological interviews was appropriate since this study aimed to uncover the lived experiences of preschool teachers engaged in play-based learning during the time of the Covid-19 pandemic. Engaging in one-on-one interviews fosters dialogue between the researcher and participants and allowed the researcher to gather information on participant perspectives about school culture, pedagogical beliefs, and lived experience (Bloomberg & Volpe, 2018).

Due to the health and wellness concerns of the ongoing Covid-19 pandemic, mobility and safety issues were of primary concern; hence participants were interviewed from their chosen venues based on their personal preference, safety, and comfort. Interview sites were located within their own homes, school settings, or other locations where an internet connection and a computer or messaging device was available. The remote and online nature of this project allowed for flexibility in the research setting, as well as for the methods of data collection.

A single 90-minute interview focusing on context building, experience reconstructing, and meaning making (Merriam & Grenier, 2019) was conducted with each participant using the Zoom platform to allow for distance-based conversations to take place while still allowing some

form of researcher and participant interaction. Each semi-structured 90-minute interview was conducted with the use of an interview protocol that served as a guide to draw out authentic and detailed participant responses. Specific interview protocols were utilized for teachers (Appendix 1) and administrators (Appendix 2) respectively. Interview questions were designed to elicit in-depth participant perspectives (Bloomberg & Volpe, 2018) regarding their school philosophies, practices, and experience in play-based learning throughout three phases: before the pandemic, during the transition to online learning, and the subsequent return to in-person classes. The interview protocols were formulated to allow the participants to share their unique individual experiences and reflections (Bloomberg & Volpe, 2018) about the challenges they encountered throughout their play-based learning process. Follow-up interviews were later requested for clarification as needed. Considering the limitations and safety concerns due to the ongoing Covid-19 pandemic, this mode of distance video conferencing became the primary method of communication for the major interviews to be conducted throughout the study. Alternative forms of communication such as online messaging apps like Facebook Messenger, WhatsApp, etc. were also utilized for ease of access for follow-up or clarification, as well as setting up meetings. Similarly, text messaging and e-mail were used to facilitate the exchange of communication as needed throughout the duration of the study. These measures were put in place as substitutes for personal, face-to-face meetings to ensure the health and safety of all parties concerned. Researcher notes were taken throughout the participant interviews. Interview locations depended on the participant's ease of access and personal comfort and safety and varied in nature.

The online nature of the project entailed the use of internet-based transfer of data that required safeguards for privacy. Data was stored in a secure password protected database and backed up using external hard drives that constantly remained securely in the possession of the

researcher. Chat transcripts were later printed out with all identifying information such as real names and school identity removed for the privacy protection of the participants. The participants and institutions were assigned pseudonyms in the transcriptions, which later served as the main documents for coding and analysis. Any video and audio recordings were only accessed by the researcher for data rechecking and clarification as needed as the fully de-identified interview transcripts served as the main database for the study.

Data Analysis Methods

Interview transcripts were processed using Zoom's in-app transcription capability and Microsoft Word. The researcher reviewed the processed transcripts manually by reading and checking the transcript for errors or points of clarification while listening to the recorded interviews to check for accuracy (Parameswaran et al., 2020).

After conducting participant checks and obtaining participant feedback about the accuracy and veracity of the transcribed interviews, the researcher employed coding to unpack participant experiences to show patterns, similarities, differences, or highlight unique lived experiences as emergent themes (Ravitch & Carl, 2021). Coding information from the transcriptions allowed the researcher to identify keywords that appeared in the interviews and helped the researcher form connections between the themes and data (Parameswaran et al., 2020). To begin the coding process, the researcher read through the transcribed data to obtain a general understanding of the material while highlighting data chunks that indicated similar or oppositional response patterns. The researcher assigned codes to organize and characterize these data chunks to provide symbolic and evocative representations of participant experience through keywords that attempted to capture the essence of their summative experience (Saldaña, 2016). Assigning key words allowed the researcher to organize and categorize critical participant

experiences for analysis and meaning making (Williams & Moser, 2019). After the codes were assigned, the interview transcripts were broken down into major “thematic fragments” of connectivity which were further analyzed for aligned themes (William & Moser, 2019). The emergent themes were compared, analyzed, and broken down into categories that best encapsulated participant experience. The themes and codes derived from the transcripts were organized into a thematic table to help the researcher organize data clusters for further analysis. The researcher then assigned color codes to represent each theme and used these color codes to highlight and segregate relevant data chunks within the transcripts for ease of identification, organization, analysis, and triangulation of data. A line-by-line analysis was then utilized in another round of coding within the thematic data chunks to enable the researcher to “deeply engage with the text” (William & Moser, 2019), as well as further identify nuances and discrete differences within the transcripts. Any additional codes were incorporated into the thematic table, after which, the table was analyzed, and the codes were reduced for redundancy. Critical reflection on the themes and codes helped enrich the meaning-making process of the study (Braun & Clarke, 2019; O’Keeffe & McNally, 2022). These themes allowed the researcher to present an overview of the phenomenon being investigated. After the thematic table was reduced, relevant quotations were identified within each theme to give authentic voice to the participants in the findings section. The use of thick descriptions was likewise employed to bring the participants experiences to life. Focus was given to issues and challenges of the participants to highlight the struggles they encountered in their experience in play-based learning during the time of a pandemic.

Issues of Trustworthiness

To ensure validity of the study, the researcher employed specific procedures to assure accuracy (Creswell, 2009). In the case of this study, the researcher made sure to use the same steps and interview protocols for all the participants, as well as utilizing the same script for information dissemination. Using the same communication and information materials, interview protocols, and interview procedures, helped the researcher obtain reliable information from the participants (Gibbs, 2018) by requiring participants to undergo a similar data gathering and interview process.

To maintain trustworthiness of the study, the researcher asked participants to check and verify information presented through various member checks. Obtaining the first-hand recounting of the participants' lived experiences helps establish the validity of the data (Bloomberg & Volpe, 2018; Creswell & Poth, 2018). Member checks are a reliable way of checking for data validity and confirmability (Bloomberg & Volpe, 2018) because this practice allows for the participants to validate whether the researcher adequately and accurately reconstructed experiences throughout the research process (Ravitch & Carl, 2021). Getting participant feedback likewise helped the researcher clarify and ascertain their own understanding and interpretation of data (Ravitch & Carl, 2021). Interview data were triangulated with transcripts, existing literature, as well as notes and any potential supporting documents to support and clarify data interpretation. To maintain data accuracy and credibility throughout the research process, the researcher employed various forms of member checks such as asking for clarification, using follow-up questions, and reviewing the interview transcripts. Participants were likewise furnished sections of the draft relevant to their experience and were requested to critique, comment, and verify information contained within these sections. Moreover, the

researcher endeavored to employ note taking for confirmability of information and interpretation. The researcher likewise used thick descriptions and quotations to “thoroughly describe important contextual factors” (Ravitch & Carl, 2021) that allow audiences to engage in deeper meaning making for transferability as well as to show the complex aspects of participants’ experiences. Triangulating data and requiring member checks helps establish credibility about the veracity and accuracy of the researcher’s portrayal of the participants’ experience. Cross-examination of data between the participants helps establish transferability across different settings and experiences (Bloomberg & Volpe, 2018). The researcher likewise maintained a communication log by saving email and text correspondence, as well as documentation and approvals from the participants to document the data collection process to establish dependability of the research data (Bloomberg & Volpe, 2018). Lastly, the researcher engaged in peer debriefs with critical friends who helped challenge researcher interpretations through the various stages of the research process (Ravitch & Carl, 2021).

Limitations of the Study

The topic of the proposed dissertation study limits the duration of participant experience to a period that encompasses the beginning of the pandemic and the transition to online learning and back to in-person learning, from March 2020 up to the end of the 2023 school year. This period provides a specific frame of reference for the participants to draw upon. The small number of participants and their specific teaching levels likewise limits the scope to illustrate only a small representative sample of experiences in play-based learning by urban private preschool teachers from within a large city in the Midwest during the Covid-19 pandemic and may not necessarily reflect experiences of the greater population. While in-person interviews could have been arranged depending on the participants’ comfort level, the online nature of the

study diminished potentials for in-person observations that might have taken away from a more nuanced interpretation of data since many non-verbal cues cannot translate as clearly across an online platform. Moreover, interviews can foster a sense of engagement, camaraderie, and dialogue between the researcher and participant (Rubin & Rubin, 2011), thereby potentially bringing in emotions and biases into the interview process that should be noted by the researcher when analyzing data. Lastly, interviews can be subjective in nature, and as such would only show a representative viewpoint of a larger experience from an individual's perspective.

Delimitations of the Study

The study was delimited to include nine representative Midwest urban private preschool educators with students between the ages of two to six, who have been engaged in play-based learning throughout the Covid-19 pandemic which started in March 2020 up to the end of the school year in June 2023. Data collection methods were done remotely using internet-based conferencing, messaging, and e-mailing applications, as well as mobile communication. Modes of data transfer were likewise constrained to online methods to safeguard participant health and safety during the ongoing pandemic. Research locations varied depending on the accessibility and safety of the participants since interviews were conducted outside of school premises.

CHAPTER 4

Findings

The COVID-19 pandemic has significantly affected the field of early childhood education. Many educators have had to adapt to remote learning and virtual classrooms, which have presented challenges in engaging young children effectively. Early childhood educators have been working diligently to provide support and maintain a safe learning environment for children during these unprecedented times. While researchers have started investigating the impact of COVID-19 on early childhood education, including the challenges faced by educators, changes in teaching practices, and the effects on children's learning and development, there appears to be a noticeable lack of comprehensive studies specifically focused on early childhood educator experiences during COVID-19. This research hopes to fill in some of the gaps by sharing the stories and experiences of play-based preschool educators who experienced first-hand the challenges and struggles of educating young children during the pandemic. The voices of preschool teachers engaged in play-based learning during the pandemic can provide valuable insights into re-imagining what play and educating young learners can look like during times of crisis. Supporting information from their respective administrators provides more insights into educator experiences and further serves to strengthen the overall data of the research. It is important to note that the administrators in this study were actively engaged in supporting the teachers in the classroom, virtually or otherwise, throughout the pandemic, thereby making the administrators' experiences of play-based learning relevant to the study as well. Because of the interconnectivity and overlap in tasks and experiences of both teachers and administrators in this research, no clear distinction was made between administrator and teacher experience in the findings. Instead, the totality of both teachers and administrators are discussed wholistically to

provide a complete picture of educator experience. Moving forward, the terms “participant/s, educator/s, teacher/s, and interview/s” shall pertain to either or both teachers and administrators and shall be inclusive of both teacher and administrator experience.

In this chapter, data and findings from participant interviews shall be organized in a sequential manner to provide a fluid progression beginning from pre-pandemic teaching in late 2019 then moving forward to pandemic related experiences between March 2020 to June 2023. The pandemic related findings shall be presented in two parts – the transition to online learning phase and the subsequent return to in-person learning, respectively. A brief description of the schools and their demographics will be presented to provide the context from which participants are framing their play-based learning experience. The detailed and relevant participant quotes utilized in this chapter will help provide evidence and establish context, as well as highlight trends, similarities, and differences in the various educator narratives. Following the natural sequence of events in the presentation of the data and themes can help paint a picture of how play and play-based learning evolved throughout the participant experience.

Overview: Play in Three Private Preschools

Play in early childhood education is impacted by the type of institution and the demographics of the school community. Such is the case for the three participant schools included in this study as described in Chapter 3.

At Smart Beginnings Preschool, families were intentional about wanting individualized learning for their children, while Bright Child Academy’s stakeholders gravitated towards the school’s student-centered philosophy where children are treated as capable and competent collaborators in their own learning process. Ms. Gwen from Bright Child mused, “The work of the child is play, so we try to give the children in our school as many opportunities to play freely

for them to have an authentic play-based experience.” Meanwhile, Ms. Lisa, the director of Progressive Play Learning Center, shared that relationships and attachments take an active role in their school community. She shared that a sense of safety and comfort is critical for children to be able to engage fully in play and learning. At Progressive Play, families are viewed as partners in their child’s learning, with many families serving the school community through volunteer or resource work.

According to all three tuition-based institutions, their predominantly white, financially capable, and choice-driven demographics contribute to how the school community experiences play-based learning. Participants unanimously shared that families who chose their schools had aligned their philosophies to authentic play, have greater access to resources, and therefore maintain higher standards of expectations particularly about the amount and quality of services they receive. All three schools strove to keep their focus child-centered despite having to cater to stakeholder demands and expectations.

A Glimpse into Pre-pandemic Play and Play-Based Learning

Play-based learning involves incorporating active, hands-on activities into the learning process to enhance engagement, creativity, and critical thinking skills among students. Play becomes the natural vehicle for learning and experiential delivery as it encourages exploration, problem-solving, and collaboration, and allows learners to engage with their environment through their natural curiosity and interests. Educators often use various materials, games, and interactive experiences to facilitate play. This section provides a background on how the participant schools facilitated play-based learning before the Covid-19 pandemic. Providing a glimpse into school philosophies and what play before the pandemic looked like helps set the context on how play-based learning evolved and changed throughout the pandemic.

Child-Centered Philosophy

All three schools in the study believe in a child-centered approach to learning. Every decision made by the school and educators centers around the well-being and best interest of the child. Teachers structure activities in a regular school day to engage the child based on their varied interests through a variety of play activities that not only bring enjoyment and wonder to the learner, but also naturally target skills and development.

At Smart Beginnings, children start the morning ready to do their important work, which is play. Self-directed stations are set up in the classroom space to provide children with choices that cater to varied interests. Teachers are observers and facilitators who pay attention to the children's interests for scaffolding and further exploration. Ms. Julie, who was a teacher trainee at Smart Beginnings the year before the pandemic started, shared that the children have the freedom to choose activities they want to engage in and where they want to take their play. According to Ms. Julie, the children are encouraged to collaborate with each other and are given the opportunity to explore materials and stations freely. Activities with target skills such as writing are embedded within the stations and designed to elicit natural responses from the children. Skills are incorporated into fun and play-based activities throughout the school day and are presented organically to pique the interest and attention of the learners while providing practical and meaningful ways for children to practice various skills.

At Bright Child Academy, teachers and children work together to build upon skills, interests, and experiences that the children bring into the learning space. Ms. Mary, a Pre-K lead teacher, shared that they like to keep things open-ended and try to ask open-ended questions that the kids would respond to. Teachers acknowledge every contribution the child makes within the

space to empower the learner to engage and explore more. Bright Child's director, Ms. Greta, emphasized children as the center of their school philosophy:

We are rooted in a responsive approach where we really acknowledge everyone who is in the classroom and see it as everyone coming together as a community. Then, really building upon students' capacity to see themselves as an active member of a community and having that responsibility to themselves and others in the classroom. We try to build upon that growing sense of autonomy and responsibility through different tasks in the classroom that allow children to have ownership over their learning.

Ms. Alice, who has served as a teacher in the Toddler, Junior Kindergarten, and Pre-K programs at Bright Child Academy, further shared that they do a lot of inquiry and project-based play to bring the interests of the children into the learning environment. According to Ms. Alice, the children's interests direct how a project progresses based on what fuels their interests and imaginations. For Ms. Alice, it is taking those little snippets of conversation and moments of enchantment with her students that makes this play-based learning meaningful and personal.

Ms. Lisa, the school administrator, shared that play takes up most of the children's school day at Progressive Play Learning Center, where the kids have between two to three hours of play time available for them to explore and experience various centers and materials. A large chunk of that time is devoted to free play where children have free choice and unlimited access to the stations. Ms. Reena and Ms. Sharon, both lead teachers at Progressive Play shared that the everyday structure of play and school activities are designed to support children in pursuing their play ideas. Ms. Sharon stressed the importance of respecting the children's work by stating, "Sometimes, the play might go in directions we adults did not think off, and that is fine because

it really is the children's work, so we respect the capacity of the children to make their decisions independently.”

All the participants clearly articulated their respect for children as being central to their teaching philosophies. Independence, agency of choice, and competence are apparent in the daily activities and the structure of play in the various institutions. For these schools, play is serious business and is the most critical work of the child.

Wholistic Child Development

Play is a crucial tool in promoting wholistic development in children. Play stimulates the overall growth and development of a child in various domains of competency such as physical, cognitive, social, emotional, and language development. The play-based institutions in this study employ various activities that target the aforementioned domains of development with their school day. Activities and materials are selected to further support the development of a well-rounded child.

Ms. Sharon, from Progressive Play shared that teachers are intentional about selecting open-ended materials that help provide children with a variety of experiences and stimuli which strive to engage all the senses, as well as encourage children to investigate, explore, and discover things about the world around them. Particular emphasis is placed on the process of play versus the products as children are encouraged to explore and uncover learning for themselves through their interests and curiosities.

Bright Child Academy employs a similar approach by incorporating the target domains into play. During indoor time, children independently lead their play based on how they want to utilize materials. Free play pauses when the specialist teachers enter the classrooms and utilize their time with the children to target specific skills or target domains through structured activities

such as games or movement play. Outdoor time is where teachers push for more independence, problem solving, and negotiating from the children. It is during outdoor play where children learn to navigate group dynamics and experience working with other children. Aside from outdoor play, Bright Child educators engage the children in morning meetings where they utilize the time to practice academic skills like letter identification, one-to-one correspondence, or counting. Morning meetings also provide children with the opportunity to share about their day and experiences, as well as provide teachers with opportunities for skill assessment. Ms. Alice, who shared that they let the kids explore either imaginatively or logically depending on their interest, noted that some children will opt for factual representations of their understanding about a specific topic, while some students will express themselves more imaginatively, thereby making play ebb and flow between fantasy and reality and the experience of play special.

While Smart Beginnings Preschool offers a similarly wholistic experience like the other institutions by providing children with a wide range of play experiences, the school engages children in more intentional activities with a specific focus on developmental domains. Four hours of Bright Child's seven hour-day is devoted to free play, while the remaining three hours are used for teacher-directed or community-based experiences to provide learners with a balanced variety of activities.

While each school has their way of structuring daily tasks, it is apparent that children are provided with a wide range of activities for exploration and discovery. Various learning domains are addressed throughout the school day through independent and teacher-directed activities designed to target whole child development.

Teachers as Facilitators

In play-based learning, teachers take on the role of facilitators to support and enhance children's learning experiences. Rather than being the sole source of knowledge, teachers create an environment that encourages exploration, discovery, and problem-solving through play. All the participants in the study shared similar viewpoints when describing their role as educators in play-based learning institutions.

Ms. Alice said that she views herself as more of a facilitator who is there to provide provocations for children to converse and explore experiences rather than have her, as a teacher, take control of and direct the play or conversation. This sentiment is echoed by her administrator, Ms. Greta, who views teachers as co-collaborators who are learning alongside the children.

“Much of our time is spent observing children in their play, taking notes, and gaining information to later put back to them to elicit deeper responses,” stated Ms. Greta. “At Bright Child... we do not actively direct the play and let the children take the lead,” she further shared.

Meanwhile, Ms. Lisa from Progressive Play stated that in the Reggio Emilia approach, teachers are in the role of facilitators serving as provocateurs in creating invitations for children to learn and explore their environment and functioning as a third teacher in the learning experience. Ms. Reena opined that she sees herself as a helper in the classroom, assisting with difficult tasks, helping children learn how to navigate conflicts, or modeling for the younger learners. “It is a lot of guiding and...talking about ideas, helping set limits and boundaries, and guiding children to develop ways to communicate and express themselves,” she shared.

It was evident from the participant responses that the play-based educators viewed themselves as guides and partners in children’s learning, rather than directors of play. Children are encouraged to take the lead in their own play, while educators serve to scaffold and

encourage young learners to expand their horizons. The educators were notably intentional about limiting adult interference to give children the locus of control and agency over their own play experience.

Play and Play-Based Learning During the Covid-19 Pandemic

The Transition to Online Learning

The transition to online learning in March 2020 was a significant response to the Covid-19 pandemic. Educational institutions around the world had to quickly adapt their teaching methods to remote and virtual platforms to ensure the continuity of education while prioritizing the health and safety of students and educators. This transition involved utilizing various online tools and platforms to deliver lessons, assignments, and assessments remotely. It also required educators to develop new strategies for engaging students in a virtual setting and providing support and resources to facilitate their learning. For play-based educators, this entailed adjusting pedagogies and reimagining what play could look like through distance and online platforms. This section discusses how the participants responded to the needs and demands of learners and families, and details educator experiences and challenges as institutions re-imagined play during the transition to online learning during the initial stages of the pandemic.

The rapid onset of the Covid-19 pandemic in March 2020 left educational institutions scrambling to respond to the sudden shift in dynamics needed for health and safety purposes. Educators first believed that the statewide school closure mandate would last for just two weeks starting on March 13, with classes resuming by March 31, 2020. However, state legislators would later extend the closure order until the end of the 2020 academic school year. The sudden demands of the pandemic required the participating institutions to make critical decisions

regarding pedagogical practices and educational delivery for the Spring quarter of 2020, which meant a shift to almost four months of online learning beginning mid-March to June 2020.

Bright Child Academy first responded to the mandates by setting up Google Classrooms to consolidate materials and gather students and teachers together for communication and information dissemination. Teachers recorded videos of messages and activities for the families to access remotely, and prepared take-home kits containing manipulatives and loose parts for the children to use at home. The school ensured that each child had a tablet to take home if they needed one and worked with families to secure internet access as needed. Ms. Alice shared that they used the Seesaw app to help establish communication and sharing of photos and videos, but the children easily lost interest in the medium of delivery. A critical aspect of educator roles at that time was to provide families and the faculty with the supports and necessary tools to adapt to the changes in educational delivery. The participants shared that they struggled with the idea of online learning because it fundamentally went against their philosophies and beliefs on child development. Furthermore, the sudden onset of the school closures left no room for preparation, as Ms. Mary expressed her concerns:

There was no lead up to the shift online, and we couldn't really prep the kids for the new situation. But I really don't think that in those months of March to June (of 2020), that being online was the best thing for anybody...Do the kids really need to be sitting in front of a computer screen watching a recording of me leading them through something? I think there were healthier ways to connect, and there were things that did not necessarily need to be happening, but because we do need to fulfill a need, we had to make do with what made sense at that time...A lot of the hands-on, deep, imaginative play we do in

person became difficult to translate into our videos online. I don't even know how effective those videos were for the children.

At Smart Beginnings Preschool, educators were already using the Class Dojo application before the pandemic to share photos of student activities with families. Ms. Emy shared that the first response of the school was to figure out how to communicate effectively with families and staff. The faculty had just one week to figure out a response to the school closure mandate with little outside support from governing bodies. Ms. Julie, who was a new teacher at that time, shared that the first two weeks of the school closures felt chaotic. Her foray into teaching after graduating from college has been what she describes as "going through the fire." She stated:

We were not sure what was happening. It was a lot of the team trying to work out how to segue into something completely different. It was us trying to figure out how to make things work without any clear guidelines and support from all those organizations and government groups. For me, it was quite stressful but also a learning experience. I was a new teacher at that time, so my early experiences into teaching felt very isolating and chaotic.

Progressive Play Learning Center tried to keep their initial response simple by moving things online via Zoom. Ms. Reena shared that they sent weekly activities and shared ideas for the families to do at home to keep the kids busy for the remainder of the school year. They likewise conducted meetings on the Zoom space where they met the kids to sing songs and read stories. Ms. Lisa said that while the school transitioned to online learning to close out the school year, their focus was trying to figure out how to keep their doors open for the next school year 2020 to 2021.

Despite the lack of external guidance from regulating bodies, the schools managed to transition to online learning, not without growing pains, and a lot of trial and error. At the end of the day, all the participants were in accord that the schools and educators did the best they could under the challenging circumstances. It was essential for the participants to address the needs of the children and maintain communication with their stakeholders for social interaction and support during a difficult time.

The Online Experience

All the schools in the study worked hard to respond to student and family needs during the pandemic. The previous section showed how the schools immediately responded to the initial school closures. In this section, participant narratives paint a picture of play and play-based learning experiences online, highlighting responses to stakeholder demands, as well as describing how play was re-imagined within the online space. Lastly, educators shared the challenges they experienced throughout the transition to online learning.

Responding to Stakeholder Demands.

All the schools in the study are private, tuition-based preschools with students coming from predominantly white, middle to upper-middle class families. While families, for the most part, were supportive and understanding about the circumstances surrounding the school closures during the initial stages of the pandemic, their expectations and demands from the schools played a huge role in shaping how the various institutions responded to the transition to online learning.

According to Ms. Mary, the administration was trying to balance what was best for the children while still fulfilling their obligation to parents that had paid for tuition. She also shared that some families had limited or no options for childcare and therefore had critical need of the

services the school provided them. Bright Child's Director, Ms. Greta, said that the school received early push-back from families to get kids on Zoom. She shared:

We know that kids should not ideally be using all these technology for prolonged periods of time, especially in early childhood. It really was the parents who were wanting a full school day online. And of course, that is just not possible and too much for the kids, so we had to produce something that was acceptable to the parents who are paying tuition but also still have the best interests of the children.

The parents at Smart Beginnings participated in daily school operations before the pandemic, with volunteer members working in the office or helping out around the school and were quite outspoken about their expectations and demands. Ms. Emy shared that many of their parents were demanding for eight hours of online schooling to get the children out from under their watch for longer periods of time. She noted that the school received less push back from wealthier families who seemed more agreeable to collaborating with the educators to find the best solutions that were going to serve the needs of the children. Despite the uncertainty of the pandemic, many families banded together to bring their demands to the board for the school to resume in-person learning as soon as possible.

Meanwhile, Progressive Play Learning Center's stakeholders appeared to be a little less demanding about the transition to online learning than the other two schools in the study. Ms. Lisa shared that while the school kept in mind the needs of the families, stakeholders for the most part were more understanding about the overall situation. The director shared:

Our school is very relationship-based and as a community, what that meant for us was the amount of effort we had to go through to keep our doors open and survive as a school was also very much a cooperation between the school, the teachers, and the families. At

that time... we did see some need to address family concerns. But it never felt like a demand for us to just do the online thing to cater to families who are paying tuition.

It is clear that despite the overwhelming belief that online learning is not appropriate for young learners, all three institutions transitioned to online learning largely as a response to stakeholder demands. The tuition-based institutions felt more pressure to cater to their families, and as a result, utilized various online learning strategies in an attempt to provide some sort of service to their students. Similarly, parent demands played a crucial role in decision-making about returning to in-person learning as early as possible.

Re-imagining Play Online.

After transitioning online in March 2020, participant schools continued to adapt as educators sought to adjust their pedagogies to the online learning environment. This section illustrates how each institution addressed the shift in pedagogies as they adjusted to the school closures from April 2020 to June 2020, and shares educator experience in re-thinking play in an online playscape.

After Smart Beginning's initial response to use the Class Dojo app to keep the connection and communication with families going, Ms. Emy said that her team produced a schedule of activities from different teachers to give the students a variety of things to do during their online time together. Due to scheduling and availability concerns, parents eventually started selecting the activities they wanted to join for the day instead of being online the entire time. Small breakout group sessions were embedded within the daily schedule to give students the opportunity to connect with peers. Ms. Gwen shared that the small group meetings with three to four children seemed to work better than the big groups largely because of the technical challenges involved with having the children and parents learn how to utilize the technology

properly. Teachers shared that having a specific focus for their 25-minute small group sessions helped establish better rhythm during the period. Ms. Emy noted:

We found was that the kids wanted to do more things together in the smaller meet-up rooms. If we gave them a focus, for example, painting...Let's talk about what we want to paint, then show each other what we painted. It was just having that chance to work together and find some kind of flow. For us educators, it became questions like – how do we achieve flow?...How can I play with you right now?

For Ms. Gwen, playing online was limiting because of the challenges of conveying an authentic play experience across the screen. Online time with the children therefore became about maintaining connections and engaging the children in opportunities for socialization. Despite the challenges in online learning, she noted that children still play as they usually do, but within the confines of their own spaces. Even Ms. Gwen's colleague, Ms. Julie, who is adept and comfortable with technology use, felt that online learning was not appropriate and challenging for young children. She shared:

It is hard because you can't force the kids to sit and look at a screen for a long time and just listen to you. Even if they are playing or doing the activities in their own space, they still need to listen to you and learn to work with the cameras...We tried to find ways to make it work. As for the activities, we relied on things that we had at home...So using things that they already have at home as part of play even when they have not thought of using those materials in a certain way. I was trying to motivate them to explore their home in different ways. Like imagining the house as a space for play and using materials in a different way. It was a learning experience to try to be more creative with thinking about using things that you use daily as an instruction or play-based material.

Aside from the daily offerings and the small group sessions, Smart Beginnings eventually opened their school's garden space as a point for parents to come as a destination with their children. The school likewise used their outdoor space for families to get access to resources prepared and shared by the teaching team. The school also kept their lending libraries open while maintaining strict sanitation practices. Ms. Emy shared that the school wanted to provide children and their families as much support and resources as possible despite the limitations of the pandemic. She further shared that the overall experience of play-based learning during the online phase of the pandemic shifted not only in terms of delivery but also in terms of the goals as well.

I think the biggest thing was the kids really needed the community. The kids needed to be seen. Like, see me teacher! See me! I remember you; I know you love me, and I love you too...So the relationship was so important...So the play we tried to facilitate was parallel play because that was really all we could do. There was no cooperative play. There was no ability to achieve that through this online medium. And we know that cooperative play is the most sophisticated play. There was no transformative play where the kids get to transform materials and explore materials.

Meanwhile, the team at Progressive Play approached the online learning with the goal of utilizing it as a hybrid setup for the 2020 school opening. According to Ms. Lisa, the school developed an online curriculum where teachers would record videos for the children to watch. They likewise sent home baskets of materials for the children to work with. Ms. Sharon shared that they utilized 30 to 50 minutes of Zoom meetings with a huge chunk of time utilized in getting the participants settled in the Zoom space. Eventually, the Zoom space became too complicated for big groups, so the school switched to small breakout groups instead.

Ms. Reena shared that while they closed out the school year online, the focus of those online sessions was to establish and maintain communication, creating supports, and building connections with the children and families. According to Ms. Reena, the goals of their play-based activities changed to adapt to the restrictions they were experiencing at that time. She stated:

We just had to sort of accept that we won't be there to scaffold play in person... The focus was to give parents ideas, to give play opportunities at home, and to give kids the opportunities to see and hear each other.

Progressive Play Learning Center would eventually utilize this online setup as part of their hybrid instruction plan when they returned in-person in September 2020. Ms. Lisa shared that the online plan was retained and utilized whenever there was a need for classes to move back online throughout the 2020 to 2021 school year.

At Bright Child Academy, the teaching team started with pre-recorded videos that targeted different learning domains. The school had one kind of activity for a learning domain for the week for the children to access and accomplish. Then, they eventually incorporated meetings on Zoom with the children into their online delivery model. According to Ms. Mary, they started scheduling 30-minute one-on-one Zoom calls with the kids to chat and keep connections going. She shared that the concept of play for the duration of the recorded meetings became focused on subjects such as Math or Literacy. Ms. Mary further shared that they eventually shifted to full two-hour blocks online over Zoom with breakout periods for play. She shared that the scheduled block was similar to a regular school day where the children would come do their morning meeting, followed by thirty minutes of play. Looking back, Ms. Mary opined that their most unsuccessful play was when the school was utilizing fully remote recorded

videos for the children. She felt that they achieved more success during one-on-one sessions through Zoom where they were able to engage children individually and cater to each child's interests. According to Ms. Alice, Bright Child kept a focus on the social aspect of play, where teachers consistently checked-in with the parents and tried to respect the children's interests and desires when choosing activities. Educators needed to get creative and think about what was easily accessible for all the students and would have the least amount of parent involvement.

In the end, the schools and educators focused on maintaining connections, whether it was peer-to-peer or teacher to family. Despite a consensus that the online mode of delivery diminished authentic play-based learning experiences, the educators agreed that online learning became an avenue for communication and social interaction.

Challenges of Online Play.

The transition to remote learning required preschool educators to quickly adapt to virtual teaching methods which posed challenges in engaging young children effectively through online platforms. Online learning, which is facilitated through technology and the use of screens contradicts the experiential, interactive, and social natures of play. In this section, educators shared the challenges they experienced throughout the online learning experience as they attempted to move play and play-based learning pedagogies online to adapt to the demands of the pandemic.

Participants shared similar sentiments about the challenges they experienced throughout the pandemic. First, there was the stressor of trying to navigate life in the middle of a pandemic. Educators shared that it was an incredibly stressful time for everyone as people were left to navigate the uncertainty of the pandemic with little to no clear guidance. Ms. Lisa, from Progressive Play, reflected upon experiencing similar struggles sharing that everyone was

experiencing the crisis of the global pandemic together and highlighted the greater demand and need for support from schools. “Parents were looking at us for direction”, she shared, “But even us educators were left to figure things out on our own.” The lack of clear guidance was extremely frustrating for the educators, as Ms. Lisa stated:

The information was scanty... No one really knew what was happening... We had to make decisions based on what we knew at that time, which wasn't a lot. We were waiting for all these agencies to kind of unify and provide some sort of direction, but it never came. Or at least it never came quickly enough. It was very frustrating.

Participants shared that aside from their personal struggles in experiencing the pandemic, they likewise experienced challenges in the implementation of online learning. Ms. Alice shared that while Bright Child's team continued to adapt to the changing demands of the pandemic, the shift to online learning came with growing pains during implementation. She shared that it was difficult to teach the children to use the technology appropriately, such as learning to mute and unmute themselves on Zoom. Ms. Alice's colleague, Ms. Mary, stated that it became unrealistic to expect the children to be in front of the camera as they had not yet developed the mindfulness to be aware of the camera at that time. Both educators shared that they felt guilty about requiring more help from parents or caregivers who were already dealing with difficult situations of working from home while taking care of their children. Ms. Alice stressed about requiring parents to assist their children during online classes, and therefore attempted to incorporate activities that required as little adult assistance as possible. “I just did not want to add on more things for them than they were already going through,” she shared pensively.

Meanwhile, Ms. Reena, from Progressive Play, observed that it was difficult to play with the children online with many things getting lost in translation across a screen. Despite educators

trying to incorporate open-ended play activities, she and her colleague, Ms. Sharon, felt that the experience of online learning was not truly play-based. Ms. Sharon's frustrations were palpable when she said, "I don't even remember mourning the loss of play at that point because it was all grouped in with other struggles we were all experiencing. At that point it was really just trying to focus on communication and the interaction of trying to keep children engaged."

The participants shared that supporting parents became a critical goal for them as they felt pressured about meeting parent expectations. Educators were likewise concerned about adding to the burdens of parents who were experiencing the crisis of the pandemic themselves. Ms. Gwen opened up about feeling vulnerable during her online experience, sharing that having parents present made her feel observed and judged about her capacity as a teacher. "For me, the hard part was when the children would lose interest, I felt bad that maybe the parents are thinking that their children don't follow me or that I might not be a good enough teacher," she shared.

Despite the challenges mentioned above, Ms. Julie noted a positive aspect about the experience, stating that she observed an increase in collaborative work amongst educators, and experienced more active support, understanding, and flexibility between the teaching teams and administration. She further shared that despite the limitations of online learning, the experience taught her to be more creative in rethinking play in its various forms and playscapes.

Returning to In-Person Learning

After transitioning to online learning from March 2020 until the end of the school year in June 2020, the participant schools experienced push-back from tuition paying stakeholders for a quick return to in-person classes for the upcoming 2020-2021 school year. Educational institutions were likewise waiting for the dissemination of guidelines for school Covid responses

which were finally released in mid-June 2020. While the public school system opted to open the 2020- 2021 school year remotely, private schools had the capacity to make independent decisions about their Covid-19 response. In this section, educators shared their experience during the return to in-person learning. The educators likewise shared about challenges they encountered during this experience and discussed the observations and reflections they have about the changes in play and play-based learning during the pandemic. Lastly, participants reflected on the totality of their experience and shared their thoughts about play and their personal growth as educators.

Responding to Pandemic-Related Restrictions in the Classroom.

Despite managing to adapt to the demands of online learning during school closures, all three participant schools clearly stated that they believe strongly that online learning is not the most appropriate method of delivery for early childhood learners. All three institutions worked hard to craft a Covid plan to bring children back into the classrooms for the school year 2020-2021.

Smart Beginnings educators prepared their physical space to ensure the safety of everyone coming back into the classrooms by working cooperatively with families to improve HVAC systems and acquiring air purifiers for each classroom. The school formed a Covid response team to review and interpret policies and CDC guidelines and sent out information to families about Covid-related protocols. The school updated their sanitation practices in cooperation with their cleaning team, and limited access only to students and the teachers who were going to be on school premises. Educators utilized outdoor spaces for as long as possible and requested families to pack lunches for the children. Ms. Emy shared, “We were forming our

own small bubble in a way, so we were very strict with the safety protocols...Thankfully, people were careful and cooperative, and we had no illness from staff or students that year.”

Meanwhile, Ms. Gwen shared that going back to in-person delivery was unlike any other experience she had ever had, with massive amounts of preparatory work to comply with health department regulations done behind the scenes to prepare the classrooms and materials for the children. She noted that despite having to contend with limitations with materials, lack of family and community member presence, and space considerations, the school attempted to keep the in-person experience as normal as possible for the children. Ms. Gwen’s colleague, Ms. Julie, shared that the biggest change at that time was ensuring that proximity between peers was kept to smaller groups. She shared that there was more individualized or small group play to give children more space and limit close contact between peers.

Meanwhile, Progressive Play utilized outdoor spaces more upon their return to in-person learning. Educators had to reimagine how to bring play and bring indoor materials and indoor activities outside. “We had to let go of a lot of types of play that were very typical and expected in a preschool classroom. There were certain toys, materials, and games that just did not work outside, so we had to make do with what we could use,” shared Ms. Lisa.

Ms. Reena noted that one big change for Progressive Play during this time was the absence of family and community members in the school which impacted the children’s sense of safety and comfort during play. She noted that despite some trade-offs to manage safety protocols, the educators were just happy to have the opportunity to engage children as closely to pre-pandemic levels of play experiences as possible. Meanwhile, Ms. Sharon shared that despite Covid-related protocols and restrictions, she felt that the essence of play and their play-based program remained unchanged.

Like the other institutions, Bright Child Academy also formed a committee in charge of planning and organizing their Covid response in preparation for the return to in-person classes. According to Ms. Greta, the school opened the school year in-person, then went back to remote teaching from Thanksgiving through the winter holidays until January 2021. The school likewise reverted to online learning whenever there were student or staff Covid exposures. Aside from following the sanitation and safety practices recommended by the CDC, kids were also limited to small groups of four during their lunch period to allow for easier contact tracing. Teachers modeled proper masking and sanitation behavior and provided language to help children understand the varied responses families had to the changing masking regulations. According to Ms. Mary and Ms. Alice, play felt very normal, and children relished the chance to interact with their peers in person after a long period of isolation.

All the participants noted that educators had to be innovative to work around the restrictions to make the environment feel safe, fun, and engaging for the children. Despite the limitations brought about by Covid-related restrictions, all the participants were enthused about being back in the classroom and were delighted to engage with students in person. The educators observed that activities naturally reverted back to pre-pandemic “normal” play and that children expressed their excitement to engage with peers and teachers alike.

Challenges of In-Person Play-Based Learning during the Pandemic.

Adjusting to the “new normal” has not been without its growing pains for all the participants and their respective institutions. In this section, participants shared about the challenges they encountered upon returning to the classrooms during the pandemic.

Separation Issues.

Educators from Bright Child and Progressive Play shared that children had noticeable difficulties separating from parents or caregivers upon their return to in-person classes. Ms. Sharon shared that despite following the lead of the child in terms of readiness to separate from their parents in school, the children, particularly first-time schoolers, required more comfort and one-on-one support from their teachers than usual. Ms. Lisa shared there was an increase in children needing transitional objects to get through the school day. She shared that transitions of any kind between activities were much harder and took longer than usual as well. Ms. Alice opined:

It was because the children were always with their parents during the pandemic, so it became more of a challenge for them to move forward or branch out. Their world went from their house to school and everywhere else very rapidly once the restrictions were adjusted. And so they needed that sense of safety more because they were trying to make sense of the changes they were experiencing.

It was apparent from the participants that the long isolation during the pandemic caused children to develop safety and separation issues from their parents and caregivers. The lack of exposure to social situations paired with the sudden expansion of the children's frames of experiences served to intensify anxieties and prolonged weaning from primary caregiver's presence. Educators shared that children required more time, attention, reassurance, and soothing to adapt to their school environment, and successfully integrated themselves into the school community.

Self-Regulation and Communication.

Aside from separation issues, the participants likewise observed challenges in student behavior such as difficulty with self-regulation, increased sensory seeking and tactile curiosity, as well as communication challenges.

Ms. Julie, from Smart Beginnings, shared that many children had difficulty understanding individual needs for space and material sharing. She observed that children came in not knowing how to do certain things that they would have come to school knowing how to do before the pandemic. Children exhibited more frustrations and difficulties expressing feelings when trying to make sense of their new environment and the novel experiences they were seeing.

Ms. Gwen pointed out that the level of attention the children received at home potentially affected how they learned to self-regulate and share with their peers. She shared that children with siblings had a stronger locus of control and a better understanding of social norms such as sharing, taking turns, and respecting other people's spaces. Ms. Gwen further observed children who were the "only child" exhibited more self-centered behavior and displayed heightened frustrations when learning to share and interact with peers.

Ms. Emy echoed these findings and shared that she observed children having more difficulty with sharing and self-regulation, particularly when it came to expanding personal space and respecting boundaries, saying that children seemed to become more individualistic and insular. She further shared that teachers have had to address more procedural things intentionally such as teaching the children how to share and take turns or helping the children to use their words to communicate effectively. Ms. Alice, from Bright Child Academy, reported similar observations regarding the difficulties in self-regulation and communication, while Ms. Lisa, from Progressive Play, shared that children missed many opportunities to develop focus and

manage frustration and problem solving. "...when you are not feeling regulated, not feeling safe and secure on a more foundational level, like persisting when you are frustrated, or being able to communicate how you feel, it impacts everything else," she stated.

A few educators noted that while some children knew how to communicate and negotiate, they appeared to have difficulty going through the action of sharing. Participants likewise observed that more children needed focused attention and proximity from teachers than before, requiring more vigilance and physical interventions such as calming, soothing, and proximity from their teachers.

Parent Expectations.

Aside from dealing with challenging student behavior, the educators shared that they had to contend with some challenges around parent expectations upon their return to in-person learning.

Ms. Emy shared that the parents at Smart Beginnings were initially very demanding about the school re-opening in person as soon as possible. However, she stated that parental expectations surrounding school offerings and the pandemic response shifted once they were back in school. She observed that parents were happy to resume classes in person but required more guidance in terms of understanding appropriate and best practices in their children's learning process. "Parents were hungry to know more about things like what they should be supporting...and what should they be rejecting when it comes to educating their children. So, educating parents about best practices, research and science-based practices is important," opined Ms. Emy.

While the parents at Smart Beginnings appeared to be more supportive of school practices, the experience at Bright Child Academy was a bit different. Ms. Alice's frustration

was palpable when she shared that she struggled with some parents being extra cautious about safety practices. While the extreme caution was understandable given the situation of the pandemic, Ms. Alice shared that she had to contend with greater push-back from parents who felt like they developed more understanding about child development during the pandemic. She shared:

You know a lot of parents...they got to know their child on a deeper level than ever before. So we had parents who felt like now they knew more about child development than the educators and experts...And some parents, they went on all these parenting forums and got all these information from social media, and so now they were like... that makes me the expert. So, it was hard having that dynamic play out. We have had to do a lot more of parent coaching because it felt like everyone just suddenly became an expert...and had their opinions and expectations about child development that were not realistic.

Ms. Greta said that parents seemed more eager to be involved, but also exhibited attachment issues that made it difficult for parents to let children be more independent. Meanwhile, Ms. Mary shared that she experienced parents being more sensitive about receiving feedback and recommendations for their children, with parents becoming more emotional and resistant to feedback. While teachers at Bright Child Academy experienced issues with parent feedback and education, parent expectations at Progressive Play Learning Center revolved more around the perception that Covid is over, therefore, kids need to catch up on what they missed during the pandemic. Ms. Lisa shared that parents have been coming in with perceptions that kids are behind and are therefore, needing more of everything, sooner, and faster. She shared:

These are first time schoolers – for the pandemic babies...they did not have the opportunities to be exposed to things. And you know, in early childhood some kids develop skills sooner than others. There is all this natural variation. There will be kids who will need more support than others, but there is an expected trajectory in terms of the arc of skills that the children will develop. So parents are coming in with a greater need to have help in understanding appropriate expectations.

Aside from a disconnect between reasonable expectations and developmentally appropriate practices, participants shared that their demographics of tuition-paying families resulted in more demands. The disproportionate expectations and a lack of understanding from parents with regards to developmentally appropriate targets and practices , coupled with high expectations created a challenge for educators.

Educator Reflections on Re-imagining Play and Play-Based Learning

The restrictions of the Covid-19 pandemic required schools to adjust not only the physical spaces for learning, but also forced educators to adapt their pedagogies to address learner needs and the safety of the community at large. The restrictions of the pandemic have been particularly difficult for play-based educators since safety protocols challenged the hands-on and experiential aspects of play. In this section, participants share how they adapted to the pandemic by re-thinking play and their approach to play-based learning. Participants also reflect on their experiences throughout the pandemic and share how it impacted their beliefs and philosophies regarding play-based learning.

Changes in Play and Play-Based Learning

All the participants, from administrators to teachers, agreed that while the delivery of play and play-based learning changed to adapt to the restrictions during the pandemic, the nature

of play itself has remained the same. Ms. Lisa, from Progressive Play Learning Center, recalled that she did not feel like play changed in terms of delivery, but observed changes in how children played. Ms. Lisa explained:

For example, a four-year-old seemed more like they were like a three-year-old. Instead of having the independence in their play, they were more reliant on teachers to solve-problems or help them navigate socially. It also took them longer to form friendships. I felt like we had to shift everything back to meet the kids where they were.

Ms. Lisa further noticed that the children needed more time to feel secure in their environment when they resumed in-person classes. “The things that stood out to me was how all the changes and restrictions during the pandemic affected children’s emotional intelligence and social skills,” she added. Other participants shared that children needed more guidance and support to expand their social and communication skills, as well as facilitate the expansion of their play themes.

Ms. Sharon shared her observations about the shift in social dynamics during play, noting that the children still brought in commonly seen themes during their play, like going to the doctor’s office, or pretending to cook in the kitchen. However, she stressed that while the themes of the play were common, it was noticeable that many children had fewer ideas or frames of reference during play. She worriedly shared:

It was like the kids mostly did not have an idea of what to do during their play. Like in the kitchen, rather than cooking, they would hoard the food. Then they had no idea what to do with it. It was like they were not ok with sharing and that social aspect of their play was different.

Ms. Julie, from Smart Beginnings, shared that a lot of children came in without frames of reference about everyday experiences. She said that they had children coming in who did not know how to do things like go on swings or struggled more with using playground equipment. She further shared that some kids did not understand that others might need more space or that they must take turns or negotiate with their friends.

According to other participants, play seemed simpler and more basic, losing many of the detailed cooperative play and complex narratives present in pre-pandemic play. Some educators, like Ms. Emy and Ms. Gwen, attributed this change as a potential reflection of children's isolation during the pandemic, noting that children exhibited difficulty sharing and playing cooperatively. Most participants concurred that the isolation and lack of physical interaction during the pandemic affected children's overall social skills. Many participants observed that play became about amassing things. "Children were hoarding things...So their play centered a lot on gathering all these materials and keeping them from other kids. It's not that they can't ask or negotiate, but the sharing part was really hard for them," shared Ms. Reena.

According to Ms. Mary from Bright Child Academy, she did not observe Covid-related themes in the children's play schemas. She shared that while she intentionally prepared materials to allow students to incorporate Covid-related experiences into their play, such as masking and giving shots using the doctor's play set, the children did not overtly express these experiences through play. Other participants who shared similar observations attributed this to the approach of families in protecting and insulating their children from the stressors of the pandemic. While play schemas did not reflect Covid-specific experiences, teachers noted that children exhibited higher level of tactile sensory desires and gravitated towards tactile activities and outdoor play

more than pre-pandemic levels. Ms. Mary noted that play also became about empowerment where children were trying to do “adult” tasks like building or hammering. She mused:

I think this stemmed from them being told no for a long time. Overall, it seems like the children need more social and emotional support. That was what I saw really regressing. The last school year, 2022-2023 has been the hardest class of kids I have ever had. These were the pandemic babies who have never had any school experience before. I don't know if these observations come from a year of shielding them from what was going on, but I feel like there has been impacts on their development.

Ms. Greta echoed the concerns and observations about changes in children's play behavior, highlighting the experience of pandemic babies. She shared that play-based learning had shifted in terms of the social and emotional foundations children were exhibiting. Educators have had to engage in more scaffolding and practice problem solving with the learners. She further noted that teachers now have an even greater responsibility to expose children to experiences that they missed out on during the pandemic. Ms. Greta stressed that while she felt that play itself has not changed, educators and policy makers need to consider the long-term effects and impacts of the pandemic, particularly concerning traumatic effects in young children.

Aside from the regressions in children's social interactions, educators noticed difficulties in incorporating more complex ideas into play. Ms. Alice shared that children seemed to take longer to transition through the different phases of play, often staying in something familiar and comforting longer while showing reluctance and resistance to more exploratory types of play experiences. Some teachers shared that they found themselves stepping in to scaffold and help children expand their play schemas, with some participants having to physically model play behaviors to the children. Ms. Alice mused, “I think...parents are not going to push-back on their

kids' play ideas and just let the children do whatever they want, so there was a lot of the flexibility and the exchange of ideas and being accepting of other's ideas that was missing." She further stated that from a developmental standpoint, children were struggling to respond to and make sense of the bombardment of new experiences they encountered after coming out of the isolation of the pandemic, requiring more time for children to get comfortable in their play and risk taking.

Overall, participants agreed that despite the nature of play remaining unchanged, the experience of play has transformed to reflect potential pandemic related trauma. Children returned to in-person classes with fewer frames of reference, limited exposure and experience, as well as difficulties with self-regulation, sharing, cooperative work, and risk taking. While the educators still consider themselves as facilitators and observers of children's play, they were more intentional in scaffolding and modeling to provide learners with concrete frames of reference to make sense of new experiences.

Professional Growth and Development

Teaching through a pandemic has challenged educators to rethink pedagogies and re-examine their philosophies about play and play-based learning. In this section, participants share their reflections about their overall pandemic teaching experience, as well as their beliefs about play and play-based learning.

Every single participant shared that teaching through a pandemic served to reinforce their beliefs about the importance of play in child development. Ms. Alice shared that the pandemic solidified her belief that play is truly the work of children, and that the whole experience rekindled her love for guiding children through their play journey. According to Ms. Alice, the challenge of teaching through the pandemic has made her a better educator and provided her

with the pause she needed to step back and examine how children experience play and her role as an educator. She shared:

In my younger years, I was more active in terms of being in the children's play and would miss a lot of observations about what they were doing, why they were doing things, and what enchanted or awestruck them...I've taken more of a step back and realized that by doing so, I get to see so much more of what is important to the kids. So now when I get bogged down with deliverables...I can look back and pause. Remember the pandemic...The best teacher that I can be is the one that sits back and listens so that I can fully allow the kids to explore and play themselves.

Other participants shared that the pandemic further validated their beliefs about the significant impacts of play in facilitating curiosities, enabling competence and confidence, and helping children develop an understanding about themselves and their role within the community. Ms. Mary added that aside from the reaffirmation of her beliefs in play as a powerful tool for learning, teaching online strengthened her belief that while technology can be useful, it is not a necessary tool for engaging young children. She shared that the pandemic experience has shaped her as an educator in thinking about the critical decisions that affect children. Participants across the board agreed that technology is just an aid that needs to be utilized carefully and intentionally when working with children. All the educators concurred that online learning was not suitable for play-based pedagogies because many things do not translate well across a screen. "You miss a lot online. You cannot clearly see or understand expressions, and you cannot completely interact with people. It is just not suitable for authentic playing," shared Ms. Gwen.

Ms. Julie, on the other hand, put a more positive spin to her experience by seeing a different value to the experience. She shared that the online experience helped her understand that there can be various degrees or ways that play-based learning can be implemented. “The effects of play on children cannot be questioned, but I did see the value of doing things differently,” she mused.

Meanwhile, Ms. Sharon, from Progressive Play, remarked that the shared experience of educating children through a pandemic gave her a greater appreciation for community and cooperation in their school community. She expressed appreciation for the trust and support their school received from parents and reflected on the vital role of the community members as partners in the education process. Meanwhile, Ms. Sharon’s colleague, Ms. Reena, opined that play has become even more critical and is the best and most natural way to support children’s development. She expressed her concerns about the direction of play as children return to school:

I found a greater need for more direct support of play...A lot of them (kids) were playing constricted themes, so it was important to help them expand their ideas. I’ve noticed that kids have fewer ideas about things in the world, and I sometimes worry if it is because they are on screens all the time instead of interacting with their environment. We have yet to figure out how long the effects of the pandemic will be on young children. As their second line of defense after parents, it falls to us teachers to figure out how to help the kids cope and deal with the trauma that they experienced during the pandemic. So, I feel like we have our work cut out for us and the effects are yet to be seen. It will take a while for us to see where we are really at.

Ms. Emy, from Smart Beginnings, reflected upon her experience leading a play-based institution. She was visibly moved when she shared how proud she was of her team and what

they were able to accomplish throughout the difficult experience of teaching through the pandemic. Educators, she said, have pledged to do the challenging work of teaching young children because of their belief that children must be allowed to have a joyful experience of playing. Her poignancy was palpable when she stated:

We used a time that was dark and challenging and turned it into something positive and beautiful...I also feel a kinship with fellow educators, and I am grateful that people are doing the research and bringing things to light. It is important that people understand what happened...Educators and parents are hungry to know the best ways to support children, and this experience taught us a lot.

Aside from reflections on their pandemic experience, the participants expressed their concerns about the long-term impacts of Covid on children. Progressive Play's director, Ms. Lisa, highlighted potential issues educators need to look out for. She commented:

Everyone shared this very traumatic experience. But what a gift it is that children can get to play to make sense of their experience in a fun way. This conversation is inspiring me to think of play as a gift and figure out better ways to help children play and help them recover from the pandemic...The pandemic served as a catalyst to turn up the volume on already existing problems... There are things we don't know yet, like how long will the effects of this pandemic trauma last. I hope that part of the recovery is some equity.

For the participants, the experience of play and play-based learning during the pandemic reiterated their personal and institutional philosophies of play being the most important and valuable tool in early childhood education and development. While all the educators expressed joy about returning to in-person learning, every participant expressed concerns about the challenges early childhood educators continue to face as they grapple with existing issues such as

screen and technology use, loss of play opportunities, and inequities that were exacerbated by the pandemic. The educators further expressed concerns about contending with the largely unknown effects of pandemic-related trauma in children.

Conclusion

The teacher narratives on engaging in play-based learning helped paint a picture of what play looked like in some early childhood classrooms throughout the pandemic. The pre-pandemic narratives discussed institutional philosophies, as well as educator roles, and illustrated how their play-based pedagogies supported wholistic child development. On the other hand, play-based learning narratives throughout the pandemic indicated loss or restrictions of various play competencies. The online learning experiences of the educators highlighted challenges such as lack of clear guidelines – particularly about appropriate screen time and technology practices, loss of diverse types and aspects of play, as well as responding to stakeholder demands.

Meanwhile, the pandemic-related restrictions upon the return to in-person classes created shifts in play-based pedagogies geared towards safety and health protocols. Educators shared observations regarding separation issues, self-regulation difficulties, and communication challenges in students, most notably among children who have had no prior school experience during the pandemic. Participants also shared their struggles with stakeholder expectations upon their return to in-person learning. The educators shared that although the nature of play has remained the same, pandemic-related responses necessitated a re-imagining of the goals of play for young children. Teacher observations indicated a regression in play competencies, difficulty in behavior regulation, and loss of deeper play schemas as potential trauma effects of the pandemic translated into children's capacities to play. Reflecting upon their experience of facilitating play-based learning throughout the pandemic reinforced educators' beliefs about the

importance of play, and further increased their opposition to screen time and technology use for young children. Lastly, educators shared their concerns about the need for research and equity in early childhood education as everyone grapples with unforeseen long-term effects of the pandemic on young children.

CHAPTER 5

Discussion

The data and participant narratives presented in the preceding chapter illustrated the play-based learning experience of educators from three private play-based institutions from a large Mid-west city in the United States before and throughout the Covid-19 pandemic. The participant narratives painted a picture of what play looked like before, during, and after the most difficult moments of the pandemic. Participants provided a look into the phenomenon of play-based learning through a global pandemic, and shared reflections from which new knowledge can be constructed.

In this chapter, data will be analyzed and broken down into themes that highlight each phase of the participant's experience. The discussion will be presented based on the chronological order of events to provide the natural progression experienced by the participants. First, the discussion of each school's philosophy, as well as descriptions of their pre-pandemic classes, will be discussed to provide the background and context from which play-based pedagogies evolved throughout the educators' experience. Next, participant experiences throughout the two phases of the pandemic shall be discussed, starting from the transition to online learning, then moving forward to the return to in-person teaching. Lastly, overall themes about the evolution of play and play-based learning, the challenges encountered by educators throughout the experience, and educator beliefs and concerns shall be discussed to lay the foundation for the final chapter, the conclusion.

A constructivist framework shall be utilized in the analysis to foster the construction of new knowledge through the analysis of the real-life experiences of the participants (Arghode et al., 2017), as well as through the presentation of prior knowledge and existing research

(Mohammed & Kinyo, 2020). Authentic knowledge construction can occur by using a constructivist viewpoint to understand the participants' experience (Huang, 2002). Lastly, practicing reflexivity throughout the analysis can help the reader dissect the participant experience to unveil new learning (Mohammed & Kinyo, 2020).

Play-based Learning Before the Pandemic

Play is a critical childhood experience (Danniels & Pyle, 2018) that is essential to a child's well-being and development (AAP, 2018; NAEYC, 2020). The importance of play in early childhood development has led to a rise in play-based institutions in the United States (Danniels & Pyle, 2018). Schools engaged in play-based pedagogies incorporate varied types of play and varying levels of educator involvement to foster exploration and curiosity in young learners (Pyle et al., 2020). In this section, an analysis of school philosophies and pedagogies, as well as educator roles shall be discussed to provide the background and context of what play and play-based learning looked like before the Covid-19 pandemic.

School Philosophies

The concepts of play and learning are inseparable in early childhood education (Nilsson et al., 2018). For the three play-based learning institutions in the study, play becomes the work of the child (Henricks, 2020; Piaget, 1962; Ünveren & Karakuş, 2020) through developmentally appropriate experiences (Pyle & DeLuca, 2017; Taylor & Boyer, 2020) that provide the learner with opportunities to explore and experiment as they make sense of the world around them (McGinn, 2017).

Progressive Play Learning Center draws from the philosophies of Piaget, Vygotsky, and Dewey to support children's learning, and views children as competent and capable partners in their own learning process. Smart Beginnings Preschool, on the other hand, describes themselves

as a Reggio Emilia-inspired school that has a profound respect for the child at the heart of their pedagogy. Meanwhile, while Bright Child Academy also draws inspiration from the Reggio Emilia approach, describing themselves as a progressive school which focuses on purposeful, personal, and project-based experiences.

At Progressive Play Learning Center, educators strive to provide children with opportunities to explore and naturally build upon their knowledge base (Henricks, 2020; Piaget, 1962) to construct their own knowledge using existing schemas (Özdoğan, 2019). Educators at Progressive Play shared that social interactions through play help children develop an understanding about social constructs (Özdoğan, 2019; Vygotsky, 1986) and provide children with intrinsic motivation (Vygotsky, 1976) to learn more about the world around them. Moreover, the educators from Progressive Play believe that engaging through the process of play allows children to learn from concrete experiences that are meaningful, purposeful, and supportive to their personal interests and curiosities (Dewey, 1910; Henricks, 2020; Skilbeck, 2017; Sjoerdsma, 2016; Walther, 2019).

At both Smart Beginnings and Bright Child preschools, children are seen as capable and competent co-creators of their learning experience (Santin & Torruella, 2017; Malaguzzi, 1993). Educators from both schools pay careful attention to ensure that their environment fosters a sense of safety and promotes exploration for young learners (Santin & Torruella, 2017) to explore and experiment, with the environment acting as a third teacher (Santin & Torruella, 2017; Malaguzzi, 1993). Educators shared that respect for the child and the child's choices is central to their schools' Reggio Emilia philosophies (Aden & Theodotou, 2019; Santin & Torruella, 2017; Malaguzzi, 1993), where children are treated as capable citizens who can direct their own learning (Vasudevan, 2015) by expressing their interests, abilities, and curiosities through

various forms of expression (Vecchi, 2010). Both institutions utilize Malaguzzi's concept of "hundred languages" (Boyd & Bath, 2017) through varied open-ended activities that stimulate, provoke, and encourage multi-modal ways of expression and understanding (Aden & Theodotou, 2019; Moss, 2016) in their students.

While each institution is inspired by various philosophies, they have all built their play-based curricula around a child-centered approach (Pyle & DeLuca, 2017; Taylor & Boyer, 2020) while providing safe and nurturing spaces (McGinn, 2017) to support and stimulate children's curiosity and agency towards their own learning process (Foulds & Bucuvalas, 2019). Aside from engaging learners by incorporating activities based on children's interests and capabilities (Pyle & DeLuca, 2017; Pyle et al., 2020; Taylor & Boyer, 2020), all three institutions encourage strong familial and community partnerships to help scaffold children's learning experiences through socio-cultural engagements and supports (Panhwar et al., 2016; Sharkins, 2017), and view family relationships as integral supports in children's learning.

As play-based institutions, all three schools encourage children to participate in diverse types of play with varying degrees of support and interaction (Danniels & Pyle, 2018; Pyle et al., 2020) designed to actively engage children in joyful and iterative experiences (UNICEF, 2018). Diverse play experiences not only provide children with fun and engaging moments of wonder and discovery, but also intrinsically target cognition, socio-emotional, communicative, and creative developmental domains to target holistic child development (AAP, 2018; Danniels & Pyle, 2018; NAEYC, 2020; Parrot & Cohen, 2020; UNICEF, 2018).

Targeting Whole Child Development

Play-based activities reflect the iterative nature of the play and take into consideration personal, social, and cultural constructs of the learner's play experience (Özdoğru, 2019). Play-

based curricula recognizes the interconnectedness of various aspects of a child's physical, cognitive, social, and emotional development (AAP, 2018; NAEYC, 2020; UNICEF, 2018). As such, the play-based institutions in the study strive to provide children with a wide variety of play experiences (Pyle et al., 2020) in an environment that is stimulating and conducive to exploration, experimentation, and problem solving (Foulds & Bucuvalas, 2019; McGinn, 2017).

All the participants shared their intentionality in incorporating diverse types of play with varying degrees of teacher involvement (Pyle et al., 2020; Taylor & Boyer, 2019) to support the development of a well-rounded child. All the schools heavily engage in free play opportunities where children are given agency over play choices and participation (Bay, 2020; Taylor & Boyer, 2019) depending on their interests (Docken, 2017) without active interference from teachers (Pyle et al., 2020). The teachers shared that they are thoughtful and intentional about curating a wide variety of materials (Taylor & Boyer, 2019) and encourage student-led exploration and inquiry through firsthand, experiential discovery (Lozon & Brooks, 2019). The various developmental domains are naturally targeted and embedded within play-activities to encourage wholistic child development (Wang, 2018; Whitebread et al., 2012).

Before the Covid-19 pandemic, all schools indicated that outdoor exploration and active, physical play constituted a large part of their schedule. Educators shared that children are provided opportunities to engage in gross motor activities like running, jumping, or climbing (Docken, 2017; Loebach & Cox, 2020; Lydia et al., 2014) outdoors. Children are likewise provided opportunities to practice fine motor activities like writing, handling manipulatives, or creating artwork (Whitebread et al., 2017). The teachers observed that it is through physical engagement during play that the children learn to take risks, socialize, negotiate, strategize, and problem-solve (Brown et al., 2020; Karaca, 2020).

Aside from various forms of physical play, the schools provide children with a variety of materials and manipulatives that allow learners to engage their senses (Loebach & Cox, 2020). Educators encourage children to engage in direct manipulation of materials to develop sensory awareness (Johnson, 2013) to stimulate the cognitive function of translating concrete experiences to abstract or symbolic interpretations (Young, 2012). Teachers shared that children are invited to explore puzzles, loose parts, and sensory tables (Docken, 2017). The educators likewise shared that their students are encouraged to engage in constructive play using varied materials (Loebach & Cox, 2021) such as blocks, Lego, or magnet builders in both functional or imaginative creations (Park, 2019) to develop planning, spatial understanding, and adaptation (Ness & Farenga, 2016). It is through exploration of the environment and materials that children develop skills that set the foundation for higher order thinking skills needed for symbolic cognition (Lydia et al., 2014; Park, 2019), as well as mathematical and scientific skills (Reikerås, 2020).

Aside from rich sensory and object exploration, educators shared that they engage children in multi-modal forms of symbolic play using music, language, art, and pretend play (Loebach & Cox, 2020). Teachers provide the children with avenues to freely express themselves and engage in meaning making of their experiences (Whitebread et al., 2017) through artistic expression, dramatic play, and music and movement. The educators observed that children relish opportunities to interact with peers and adults and develop social and emotional regulatory skills throughout these interactions (Onder, 2018; Veresov & Barrs, 2016; Whitebread et al., 2012). Moreover, children utilize these symbolic activities to express their feelings and build relationships (Peterson & Greenberg, 2017), while constructing new ideas and experiences (Ceylan & Gök Çolak, 2019).

The information about pre-pandemic play-based practices from all three institutions describe learning environments and curricula that are rich in exploration, discovery, and experiential learning through diverse types of play with overlapping benefits to the various developmental domains (Docken, 2017). All the participants described their pre-pandemic play-based setups as engaging and vibrant venues for children to develop social norms (Lydia et al., 2014; McGinn, 2017; Taylor & Boyer, 2019), cooperate and collaborate, practice perspective taking and conflict resolution, and develop responsibility (Docken, 2017; Guirguis, 2018; Lydia et al., 2014; Pyle & Danniels, 2017; Pyle & Deluca, 2017; Taylor & Boyer, 2019). While none of the educators explicitly mention targeting academic learning, play and play-based activities naturally support academic development by targeting literacy, scientific, and mathematical skills (Pyle et al., 2020), as well as developmental domains (Docken, 2017), thereby providing wholistic child development (Wang, 2018; Whitebread et al., 2012).

Teachers as Facilitators

In a play-based learning setup, children are viewed as the directors of their play, with teachers taking on a supporting role to enable interactions by providing opportunities to communicate, construct, and extend learning (Johnstone, 2022). Although active teacher interference is discouraged (Gray, 2017), some form of teacher involvement is essential (Pyle & Danniels, 2017) to support children's internalization and exploration of unfamiliar concepts (Johnstone, 2022).

For all the educators, their role to provide child-centered, individualized, open-ended, and purposeful opportunities for learning through play (Edwards, 2017; Nolan & Paatsch, 2018) is essential to help children enrich ideas and extend play experiences (Johnstone, 2022). According to the teachers, they view themselves as facilitators who mediate children's exploration and

discovery (Milne & McLaughlin, 2018; Hunter, 2019; Hunter et al., 2020) with the intentionality and purpose of enhancing children's play experience (Blucher et al., 2018). The teachers cited the importance of understanding the specific needs, interests, and motivations of their students as key considerations in their facilitation of the play experience (Milne & McLaughlin, 2018; Hunter, 2019).

For all the participants, their key role in the classroom is to encourage independence, guide interactions and negotiations, monitor safety, and mediate conflict (Claxton, 2018; Hunter et al., 2019). Aside from acting as facilitator, teachers stated that they actively provide scaffolding opportunities for children to build upon their play experiences, support socio-emotional competence, and increase understanding (Wasik & Jacobi- Vessel, 2016) to allow learners to unlock and expand their own learning process (McNally & Slutsky, 2017). The de-centering of the teacher's roles in the participating institutions clearly illustrate how the play-based classroom allows children to engage in child-led play experiences that are intrinsically motivating and interesting for young learners (Hunter et al., 2019), and places the locus of learning directly on the children.

The Evolution of Play-Based Learning during the Covid-19 Pandemic

The Covid-19 pandemic resulted in school closures in March 2020 as a response to public health and safety concerns (Friedman, 2020). Schools adapted to the immediate needs of students and families during this time by transitioning to online learning as an emergency response (Cam & Cam, 2023; Hebebcı et al., 2020; UNESCO, 2020). In this section, participant discussion of their experiences during the transition to online learning and the subsequent return to in-person classes shall be analyzed for critical insights about the strategies, goals, and challenges the participants encountered as they adapted play and play-based learning throughout the pandemic.

Transition to Online Learning

The sudden implementation of school closures in March 2020 (UNESCO, 2020) caught educational institutions unaware with little to no systems or guidelines for online learning in place (Schleicher, 2020). Participants indicated that the lack of prior preparation resulted in educators and parents having to take the reins in decision-making about the children's educational situation with very little guidance or clear information from governing bodies and professional organizations (McKenna et al., 2021; Murray et al., 2021; Samuelsen et al., 2020) on how to navigate the situation. Educators shared that aside from pandemic and safety related concerns, they also had to contend with stakeholder expectations about the services they could provide for the children during the school closures and were concerned about stakeholder buy-in because the schools are all tuition-based institutions (Alan, 2021; Dayal & Tikko, 2020). Although the participants were apprehensive about transitioning because of their beliefs that online learning could not be as effective as in-person education (Hebebcı et al., 2020), particularly for play-based learning, the educators were concerned about health and safety, and accepted their institutions' decisions to move online (Faridah et al., 2021).

Online Learning Strategies and Goals.

Educators shared that they had little time to make pedagogical decisions about content, mode of delivery, scheduling and timeframes that could potentially meet the developmental needs of the children (Barabási, 2021). First, the educators sent home learning kits or materials for the children (Barabási, 2021; Murray et al., 2021) and focused on information dissemination and maintaining communication and relationships with the children and their families (Inan, 2021), with educators meeting children online at least once a week (Barabási, 2021). Educators worked to ensure that families had access to technology (Faridah et al., 2021; Murray et al.,

2021) such as tablets, internet connectivity, educational resources, and delivery platforms as needed. It is interesting to note that while research indicates that many families experienced inequities in technological access (Dayal and Tiko 2020, Kruzewska et al. 2020, Syarah et al. 2020; Yildirim 2021), none of the participants expressed the lack of access to technology as a particular challenge during their experience. This could potentially be attributed to all the participant schools having students that come from more financially advantageous families. Similarly, unlike other educators who identified lack of digital competencies as a critical issue in their online learning readiness (Kuset et al., 2021), participants shared that although they needed some time to adjust to the competencies required for online delivery models, they felt that they were able to manage the transition well. This could be attributed to the flexibility in delivery and teacher expectations about what could be accomplished successfully online, as well as flexibility about student participation, with the schools leaving the decision-making regarding participation up to the parents (Barabási, 2021; Murray et al., 2021).

The participants used varied strategies like sharing materials and activities online, using communication and video sharing apps and platforms such as Zoom, and utilizing photo and video share apps like Class Dojo (Alan, 2021; Dayal & Tikko, 2021; Murray et al., 2021; Yildirim, 2021) to impart information and maintain communication with students and families. The educators indicated that they kept online sessions to about 30 to 40 minutes a day, or even shorter, to stay within recommended screen use guidelines. Guidelines suggest an hour a day of adult guided screen time for children within the ages of two to five (Barabási, 2021; AAP, 2016; DoED, 2016). Despite staying within the guidelines, educators expressed concern about the potential effects of screen time on young children (Aslan et al., 2022). Teachers likewise shared that, as much as possible, they chose activities that involved engaging children in movement and

active participation, such as finding things around the house or building structures to take the focus away from the screens (Barabási, 2021; Murray et al., 2021), as well as provide opportunities for independent and hands-on learning (Inan, 2021; Murray et al., 2021). The participants relied heavily on parent support to help prepare the children's learning environment and gather materials needed for the activities (Murray et al., 2021). The participants further shared that while they utilized large group gatherings over Zoom to maintain a sense of community, small group activities or social interactions (Murray et al., 2021) via break-out rooms seemed to be more successful for the young learners. This observation echoes Inan's (2021) study where Reggio educators shared that online learning did not support large group activities because children had difficulties maintaining focus. Meanwhile, research about Montessori educators' response to the pandemic showed that like the participants, Montessori educators heavily encouraged families to engage in opportunities to go out with the children to enjoy activities in nature (Murray et al., 2021). The main goals of all three institutions during the transition to online learning were to provide support for children and their families, maintain relationships and social interaction, and provide some sort of routine for the children (Inan, 2021; Murray et al., 2021; NAEYC, 2022).

Challenges During Online Learning.

The participants faced several challenges in online learning which were like the challenges reported by several researchers (Aslan et al., 2022; Faridah et al., 2021; Inan, 2021; Kruzewska et al., 2020; Murray et al., 2022; Yildirim, 2021). Participants shared that interaction online was limiting due to difficulties translating verbal and physical cues across a screen that hinder children's ability to establish more meaningful connections (Aslan et al., 2022; Inan, 2021). It was particularly challenging for young learners to stay focused (Aslan et al., 2022;

Inan, 2021; Yildirim, 2021) and be aware of online norms such as staying within camera range, taking turns to talk, and practicing proper muting and unmuting (Faridah et al., 2021). The teachers shared that they spent a considerable time attempting to instruct children about the proper online etiquette (Murray et al., 2021). Participants reported that the online modality restricted diverse types of activities and play experiences because of issues such as lack of materials and access, caregiver availability, and loss of educator ability to directly guide or scaffold more challenging tasks (Aslan et al., 2022; Faridah et al., 2021; Inan, 2021; Kruzewska et al., 2020; Yildirim, 2021). Parental involvement was likewise challenging because of varying levels of comfort with technology, availability, and support (Aslan et al., 2022; Faridah et al., 2021; Inan, 2021; Kruzewska et al., 2020; Yildirim, 2021). The participants felt that it was challenging for them to conduct large group activities online, and that small break-out groups seemed to work better for the children (Aslan et al., 2022; Inan, 2021).

The shift to online learning became a necessary response to the restrictions of the pandemic, student needs, and parental demands (Alan, 2021; Dayal & Tikko, 2020). For the participants, the shift to online learning resulted in the loss of various play types and activities that did not translate well across a screen (Aslan et al., 2022; Inan, 2021). There were limited opportunities for deeper interpersonal communication and engagement, and restricted experiential activities for children (Aslan et al., 2022; Inan, 2021). While all the schools attempted to stay true to their play-based philosophies, all the participants agreed that the online setting and the restrictions of the pandemic hindered free play and necessitated adjustments to their pedagogies (Inan, 2021).

The “New Normal”: Returning to In-Person Instruction

Early research about Covid transmission conducted in the Spring of 2020 suggested that Covid-19 is less common and weaker in children than in adults (Lee & Raszka, 2020). Moreover, a wide-scale survey found that educators from early childhood institutions that were open were no more likely to contract Covid than their counterparts from schools that remained closed. (Melnick & Placencia, 2021). Previous research on school closures during influenza and the SARS outbreak suggest that school closures have little effect on virus transmission rates and provides weak evidence for the need for school closures (Ahwireng, 2022; Gasibat et al., 2021; WHO, 2021; Viner et al., 2020). The AAP strongly advocated for the re-opening of schools citing the need to balance health and safety concerns to the critical needs of students that are adversely affected by school closures (Lee et al., 2020). In June 2020, states and school districts across the United States prepared for the subsequent return to in-person classes by releasing guidelines for the opening of the school year in September 2020 (AAP, 2022; Ballotpedia, 2022; Marshal & Bradely- Dorey, 2020).

In this section, educator strategies of their adaptation to the restrictions of in-person classes shall be discussed together with participant observations about the concerns they encountered upon their return to the classrooms.

Adapting to the “New Normal”.

Educators foresaw changes in educational practices as schools adapted previous norms and procedures to the so-called “new normal” (Aslan et al., 2022) to adjust to Covid-related restrictions and practices. Novel practices such as working from home, blended learning settings, lockdown and quarantine procedures, and the wearing of face masks and other safety and hygiene practices are just some of the new adaptive practices brought about by the Covid-19

pandemic (Corpuz, 2021). According to the participants, going back to in-person classes required careful preparation and planning because of the multidimensional safety interventions (Ahwireng, 2022) they had to consider in response to health and safety guidelines from national health authorities.

The Centers for Disease and Control Prevention (CDC, 2020, 2021) recommended social distancing of at least six feet, as well as reducing large group activities to reduce Covid transmission risk. Participants shared that while they did not experience difficulties in maintaining adequate space within their classrooms due to small class sizes, they still endeavored to use social distancing measures such as utilizing small group settings, ensuring gaps between centers, creating shifts for children moving in between centers, utilizing outdoor spaces whenever possible, and prohibiting non-essential personnel and caregivers from entering school premises (Ahwireng, 2022; Cahapay, 2020; Melnick & Darling- Hammond, 2020). According to the teachers, the need for social distancing reduced opportunities for children to learn how to share (Inan, 2021) and created limitations in how the children and educators could interact, as well as severely limited opportunities for engagement and interaction with other members of the school community. The participant schools likewise utilized outdoor spaces as often as possible to minimize the virus transmission risk (Esposito & Principi, 2020; Inan, 2021).

The participants shared that mealtimes were either eliminated altogether with a reduced schedule or were severely restricted with children eating food they brought from home in small groups or with clear barriers between them (Inan, 2021; Penna, 2020). According to the schools, in compliance with CDC guidelines (2020), cleaning and disinfecting shared spaces, high touch surfaces, and classroom materials occurred frequently (Melnick & Darling-Hammond, 2020; Melnick & Plasencia, 2021; Penna, 2020). Teachers said that soft materials such as stuffed toys

and manipulatives that were difficult to sanitize were removed from the classrooms, and children were provided individual learning kits and materials to avoid sharing and potential contamination (Esposito & Principi, 2020; Inan, 2021).

Although CDC guidelines suggested that masks were optional for children between the ages of two to five (Melnick & Plasencia, 2021), the schools required the use of masks for all adults and children within the school premises until mask restrictions were eased much later during the pandemic. The teachers shared that while they had to teach children proper mask usage, the children did not exhibit an aversion to mask-wearing. The schools likewise practiced frequent handwashing and hand-sanitizing (CDC, 2020, 2021; Inan, 2021; Melnick & Plasencia, 2021). Aside from masking and frequent hand washing, the schools also worked to improve ventilation and installed HEPA compliant air purifying towers which were donated by some families in their school community.

Despite the various restrictions, teachers shared that their main goal was to create an environment that was as “normal as possible” to provide the children with a safe space to play and explore. Participants said that while the schools made the necessary adjustments based on CDC recommendations, they all tried to revert to pre-pandemic practices that are faithful to their play-based school philosophies. While the teachers experienced growing pains adjusting to the “new normal”, participants shared that they experienced fewer pedagogical challenges during face-to-face classes versus online learning (Inan, 2021). Despite facing fewer logistical and delivery related challenges, teachers stressed their strong concerns about the effects of the pandemic on children which have become apparent as the students returned to in-person classes.

Challenges during the “New Normal”: Trauma and Effects of the Pandemic.

The return to in-person classes in September 2020 brought about new observations and concerns for the participants. Despite experiencing fewer challenges during the in-person transition than their online learning experience (Inan, 2021), the participants shared some concerning observations about the shift in student behavior. While the educators did not explicitly attribute the shifts in student behavior to any specific cause, various research suggests correlations between the negative behaviors and the impacts of screen time (Monteiro et al., 2022; Sapsağlam & Birak, 2023; Van den Heuvel et al., 2019) and trauma during the pandemic (APA, 2020; Gülmez & Ordu, 2022; Sciaraffa et al., 2018).

School closures during the Covid-19 pandemic led children to experience lost opportunities for play, lack of human connection, loss of access to play spaces, and disruptions to stability, and routine (APA, 2020; McKenzie, 2021; UNESCO, 2020) and created a higher risk for trauma in children (Guirguis & Longley, 2021). Consequently, the shift to online learning at the start of the pandemic necessitated the use of technology and screens as modes of delivery despite AAP guidelines that recommend a maximum of one hour per day of technology use for children between the ages of two to five (AAP, 2019; WHO, 2019). While the participant schools attempted to stay within the AAP guidelines, it is important to note that this does not account for other screen or technology-based activities experienced by the children outside of “school hours,” thereby potentially making actual screen exposure times longer than the ideal recommendation (Kardes & Dokumaci, 2021; Rideout & Robb, 2020; Sapsağlam & Birak, 2023).

Studies show that prolonged screen time results in attention problems (Tamana et al., 2019), self-regulation issues, tantrums, low frustration tolerance, poor eye contact, and learning

difficulties such as cognitive and language deficits, and behavioral challenges (Dunckley, 2014; Felix et al., 2021; Joseph et al., 2022; Monteiro et al., 2022; Van de Heuvel et al., 2019). The negative impacts of prolonged screen time echo many of the traumatic effects of isolation brought about by the limitations of the pandemic (Miller 2020). Research indicates that the social isolation and technology use resulted in children exhibiting maladaptive behaviors such as anxiety, fear, irritability, separation difficulties, and tantrums (Kahraman & Apak, 2021), many of which were observed by the participants upon their return to in-person learning (Gülmez & Ordu, 2022).

According to the participants, children exhibited separation issues from their trusted caregivers, lack of self-regulation and impulse control, difficulties with communication and expression, and regression in their play behaviors. These observations were echoed by educators in a study by Monteiro et al. (2022) who noted a decrease in creative and diversified imaginative play, problems in socialization and interactions, difficulties in communication, as well as more aggressive play behaviors and lack of attention, and an increase in individualistic behaviors (Doliopoulou & Rizou, 2012; Monteiro et al., 2022). Participants noted that the lack of variance in the children's play behaviors could potentially be attributed to the lack of exposure due to the isolation and limitations of the pandemic. Aside from loss of frames of reference, the educators also observed highly individualistic, more self-centered behaviors (Hu et al., 2020; Gülmez & Ordu, 2022) such as difficulties in sharing and hoarding of toys, challenges in socialization and expression of feelings, and issues in conflict resolution and problem solving (Zhou et al., 2019). A study by Duran (2021) indicated that parents likewise observed issues in self-regulation, aggression, dependency, and jealousy in children during the pandemic. It is interesting to note that despite the play and behavioral changes that indicate potential negative screen time and

pandemic trauma, the participants did not observe explicit Covid-related behavior in the children's play schemas. While some of the teachers prepared Covid-related play materials to help children express their pandemic experience through play (Feldman, 2019; Guirguis & Longley, 2021; RB-Banks & Meyer, 2017; Sutton-Smith, 2016; UNESCO, 2019), the teachers noted that the children did not translate pandemic related practices into their play but chose more common themes such as taking care of the dolls, cooking with the kitchen play set, or building with Legos. The educators attributed the absence of pandemic-related play behaviors to the higher socio-economic demographics of their students' families who were better equipped to shield their children from many of the negative effects of the pandemic (Linnavalli & Kalland, 2021).

Reflections on the Experience of Play and Play-Based Learning During the Pandemic

The Covid-19 pandemic disrupted education globally (Yazici & Yüksel, 2022). Educators faced unprecedented challenges brought about by sudden school closures (UNESCO, 2020) the transition to online learning (Gomes et al., 2021), then the subsequent return to in-person classes with Covid-related restrictions and practices (AAP, 2022). The overall experience of the pandemic has impacted children's play (Aslan et al., 2022; Faridah et al., 2021; Inan, 2021; Kruzewska et al., 2020; Yildirim, 2021) and educator experience (Cam & Cam, 2023; Hebebcı et al., 2020; UNESCO, 2020). In this section, participant thoughts focusing on the changes in play and play-based learning, as well as personal and professional reflections, shall be examined to provide a synthesized view of the educators' experience engaging in play-based learning throughout the pandemic.

The participants were all in agreement that despite the restrictions and limitations brought about by the pandemic, the nature of play has not changed (O'Keefe & McNally, 2022).

Educators focused on utilizing the children's immediate environments as a source of inspiration for play throughout the pandemic (O'Keefe & McNally, 2022). The teachers emphasized that despite the need for more planning to address pandemic-related limitations or restrictions, play was still very much child-directed (O'Keefe & McNally, 2022). The inherent qualities of play as a medium of enjoyment, exploration, socialization, and discovery (Howard, 2019) for children remains constant to that of pre-pandemic play competencies (O'Keefe & McNally, 2022).

Although delivery models during the pandemic have resulted in the loss of various play types, children still gravitated towards play that represented their interests and curiosities (O'Keefe & McNally, 2022). Despite the constancy of the goals and benefits derived from play, the teachers expressed concern about the regression (Duran, 2021; Gülmez & Ordu, 2022; Hu et al., 2020; O'Keefe & McNally, 2022; Zhou et al., 2019) they observed in the children's play behaviors such as having fewer frames of reference for more imaginative play and difficulties with sharing or negotiating (Doliopoulou & Rizou, 2012; Monteiro et al., 2022). Participants shared that they focused on using play to maintain connections and help children feel safe especially since they observed that children needed more supports and scaffolds when they returned to school (O'Keefe & McNally, 2022).

The pandemic experience served to reinforce all the participants' beliefs about the value and necessity for play. Teachers opined that while technology has its uses, prolonged screen and technology use is not beneficial to children (Dunckley, 2014; Felix et al., 2021; Monteiro et al., 2022; Tamana et al., 2019; Van de Heuvel et al., 2019). Participants shared that the loss of play opportunities during the pandemic negatively impacted the development of children (Kahraman & Apak, 2021; Miller 2020; Yaziki & Yüskel, 2022) and served to reinforce their commitment to support children's play further (O'Keefe & McNally, 2021). For all the educators, play should

continue to be a priority for children (Dodd et al., 2021, Moss et al., 2020; O’Keefe & McNally, 2021; O’Keefe & McNally, 2022) moving forward.

Conclusion

The adaptation of play and play-based learning practices throughout the phenomenon of the Covid-19 pandemic has been fraught with challenges for educators (APA, 2020; McKenzie, 2021; UNESCO, 2020). The synthesis of the findings from Chapter Four, in juxtaposition with relevant research, helped portray the participants’ experience as nuanced processes that affected pedagogies and delivery models in play and play-based learning. The Covid-19 pandemic served to highlight and compound existing issues in contemporary play such as screen time and digital divide, loss of play and various play types (Aslan et al., 2022; Cam & Cam, 2023; Hebebcı et al., 2020; Inan, 2021). More importantly, emerging research coupled with the participant narratives indicate pressing concerns regarding the traumatic effects of the pandemic manifesting through children’s play and behaviors (Kahraman & Apak, 2021; Miller 2020; Yaziki & Yüskel, 2022) within the current context of in-person education. Educator experience further re-affirmed personal and institutional beliefs and philosophies about the importance and value of play in child development (Dodd et al., 2021, Moss et al., 2020; O’Keefe & McNally, 2021; O’Keefe & McNally, 2022). The totality of the participants’ experience aligns with various research studies conducted about teacher and parent experiences, perspectives, challenges, and reflections in early childhood education throughout the pandemic (O’Keefe & McNally, 2022).

In the next chapter, the implications of how educators experienced play and play-based learning throughout the pandemic will be considered. Researcher insights and reflections shall be discussed to identify the value and relevance of the findings. A review of the limitations,

participant concerns, and research gaps shall be identified to support recommendations for future directions and research.

CHAPTER 6

Conclusion

This research sought to better understand how preschool educators engaged in play-based learning re-imagined play as they adapted to the restrictions and demands of the Covid-19 pandemic.

The school closures in response to Covid-19 in March 2020 necessitated an abrupt shift to online learning as a response to both regulatory mandates and stakeholder demands (Alan, 2021; Dayal & Tikko, 2020). Results indicated that educators experienced little preparation to transfer learning online (Barabási, 2021) and received little to no clear guidelines from regulatory bodies (McKenna et al., 2021; Murray et al., 2021; Samuellsen et al., 2020). The main goals during the transition to online learning were to provide support and routine, maintain relationships, and establish social interaction for the children and their families (Inan, 2021; Murray et al., 2021; NAEYC, 2021). Several of the challenges during online learning include difficulty for children to stay focused (Aslan et al., 2022; Inan, 2021; Yildirim, 2021), issues with practicing online etiquette and norms (Faridah et al., 2021), and varying levels of caregiver support, scaffolding, availability, and access to materials (Aslan et al., 2022; Faridah et al., 2021; Inan, 2021; Kruzewska et al., 2020; Yildirim, 2021). Overall, the participants agreed that online learning hindered free play (Inan, 2021) and expressed concerns about the potential effects of screen time on their learners (Aslan et al., 2022).

Upon their return to in-person classes in September 2020, the institutions adapted Covid-related practices such as using small group settings, maintaining distance between play areas, creating scheduling shifts, utilizing outdoor spaces, prohibiting non-essential personnel access (Ahwireng, 2022; Cahapay, 2020; Melnick & Darling-Hammond, 2020), as well as adhering to

CDC (2020) guidelines of hand washing, sanitation, and maintaining proper ventilation and air purification (IDPH, 2020; Melnick & Darling- Hammond, 2020; Melnick & Plasencia, 2021; Penna, 2020). Despite experiencing less pedagogical challenges during face-to-face classes versus online learning (Inan, 2021) results indicate potential impacts of screen time (Monteiro et al., 2022; Sapsağlam & Birak, 2023; Van de Heuvel et al., 2019) and trauma (APA, 2020; Gülmez & Ordu, 2022; Sciaraffa et al., 2018) caused by the isolation of pandemic (Miller 2020) on the play and behavior of children such as difficulties with self-regulation, language, and communication (Dunckley, 2014; Felix et al., 2021; Joseph et al., 2022; Monteiro et al., 2022; Van de Heuvel et al., 2019), separation anxieties (Kahraman & Apak, 2021), a decrease in diversified and imaginative play, and an increase in individualistic behaviors and problems in socialization (Doliopoulou & Rizou, 2012; Monteiro et al., 2022).

Looking back on the totality of their experience, participants indicated that while educators adjusted their pedagogies to adapt to the restrictions of the pandemic, the inherent nature of play as a vehicle for child-directed exploration and discovery (Howard, 2019) remains unchanged (O’Keefe & McNally, 2022). The overall pandemic experience reinforced educator commitment and beliefs about the value of play (O’Keefe & McNally, 2021) and highlighted concerns about the effects of prolonged screen time and technology on young children, as well as the potential traumatic impact of the pandemic on children (Dunckley, 2014; Felix et al., 2021; Joseph et al., 2022; Monteiro et al., 2022; Tamana et al., 2019; Van de Heuvel et al., 2019). Although the results of this study show that play continues to be essential to child development (Dodd et al., 2021, Moss et al., 2020; O’Keefe & McNally, 2021; O’Keefe & McNally, 2022), it is important to note that the narratives and philosophies of the educators involved in this study were taken from individuals who specifically come from highly play-oriented institutions that

practice deeply-rooted play-based pedagogies, thereby influencing the participants' implacable beliefs in play and play-based learning. It is also important to note that participants' stakeholders and families come from mostly-white, higher socio-economic demographics that might not reflect common issues of access and inequity. This study is likewise constrained to a specific period between March 2020 to June 2023 to reflect the experience of educators during the height of the Covid-19 pandemic, and therefore is limited in scope and range. Moreover, while participant data was subjected to multiple member checks, data triangulation, and reflective analysis, it is important to acknowledge that the method of interviewing participants for the study can potentially be affected by participant reactivity (Maxwell, 2008) as well as researcher bias due to researcher beliefs about the critical value of play. Furthermore, as a qualitative form of research, this phenomenological study may not be generalizable to all settings but could potentially be transferrable to similar situations (Bloomberg & Volpe, 2018). Lastly, the small sample size of the study provides a limited representation of play and play-based learning experiences and may not be reflective of the greater population.

Researcher Insights

I started this study with a strong belief that play is critical to child development (AAP, 2018; NAEYC, 2020). Going back to my *raison d'être* to undertake this study, I now draw upon my leadership philosophies of respect, revitalization, realization, response, and relevance throughout the research and analysis process of this paper. It is through the lens of these 5 R's that I share my insights.

Over the years, the value of play in early childhood education has diminished in favor of academic driven standards (IPA, 2014, APA, 2020; UNESCO, 2020). The Covid-19 pandemic led to further concerns of the loss of play (McKenzie, 2021) as educators struggled to adapt to

school closures and safety restrictions (Pascal & Bertram, 2021). The ongoing concerns about that state of play, coupled with the often-unseen struggles of early childhood educators (Dayal & Tiko, 2020) led to a desire to better understand pandemic playscapes and educator experience. It was this commitment to play and play-based pedagogies, as well as my goal to provide early childhood educators a voice, which helped shaped this research. Although the pandemic is no longer considered a global health emergency, it has changed the way we live and continues to have effects in our daily lives (Cheng, 2023), making this topic both relevant and timely as educators continue to address the emerging needs of children.

Respect for the Child

Undertaking this research and hearing the narratives of the participants re-affirmed my belief about play as a critical vehicle for children to make sense of their expanding world (Danniels & Pyle, 2018; Pyle & DeLuca, 2017; Taylor & Boyer, 2020) and cope with the negative experiences associated with the pandemic (APA, 2020; Gülmez & Ordu, 2022; Sciaraffa et al., 2018). The steadfast commitment of the participants to respect the value and integrity of play despite the difficulties of shifting pedagogies has been inspiring. This serves as a crucial reminder to me, as an educator, leader, and researcher, that it is the children who are the heart and soul of play, and as such should be the focus in decision-making. Respect for the child as a capable agent in their own play and learning experience is crucial (Malaguzzi, 1993) but is often overlooked because adults hold the power and authority in decision-making.

Revitalize Educator Supports

The challenges faced by the participants highlight the need to revitalize educator training and supports across levels, from national agencies down to the institutional and educator levels. Although the participants did not expound on the lack of cohesive supports as a particular

challenge throughout their experience, it could be inferred from the narratives that schools were left to fend for themselves as they adapted to the shifts and restrictions throughout the pandemic. This is particularly concerning as the field of early childhood community contends with a potential financial cliff that continues to widen the gap for funding critical childcare services which include educator training and support (Huddleston- Casas, 2023). I have the utmost respect for the participants and educators who have given tremendously of themselves while living through the challenges of the pandemic. This research is one more piece of evidence pointing towards the need for critical training and support as we move forward as a society.

Realize and Respond to Learners' Needs

The measures the participants took to adapt to the pandemic while trying to stay true to play and play-based philosophies showed the tenacity and creativity of the teachers as they drew upon research and experience to support their young learners. Despite stating that many critical aspects of the authentic play experience were lost due to pandemic restrictions (APA, 2020; McKenzie, 2021; UNESCO, 2020), the participants were steadfast in keeping the children the focus of their work. The ongoing challenges upon the return to in-person classes illustrate the greater need for supports as educators work to address trauma, delays, and other developmental issues that might continue to manifest as children born during the pandemic begin schooling. These issues reiterate the need to keep play and play-based education goals child-centered as educators work to realize and respond to the children's needs.

Relevant Adaptation to Changing Playscapes

The results of this research shared the journey of play-based preschool educators as they grappled with the evolving demands of the pandemic. The narratives showed that despite having resolute beliefs about the importance and value of play and play-based pedagogies, the

participants practiced flexibility and adaptability in their pedagogies, and maintained reflexivity in their teaching practice. Although the pandemic curtailed many play experiences and affected the translation of play competencies (APA, 2020; McKenzie, 2021; UNESCO, 2020), the educators found relevance by focusing on the practical aspects of what could be achieved through the various delivery models and activities (Alan, 2021; Dayal & Tikko, 2021; Murray et al., 2021; Yildirim, 2021) they presented to the children. This shows that even if some delivery models may not be as effective for authentic play-based experiences for young children, play is relevant and can be re-imagined in different ways, be it through the goals, activities, or delivery models of various playscapes. Although the nature of play has not changed (Howard, 2019; O’Keefe & McNally, 2022), the experience of play continues to adapt to reflect child experience, educator practices, governmental regulations, and socio-economic, as well as geo-political landscapes.

In the next section, I shall draw upon these researcher insights, as well as participant concerns and research gaps, to present recommendations moving forward.

Recommendations

The recommendations presented below are based on research findings, participant concerns, researcher insights, and research gaps. These recommendations are for play and play-based learning educators, advocates, leadership, and researchers to consider as we move forward through recovery from the Covid-19 pandemic.

Educator Supports and Disaster Response Readiness

The sudden school closures and shifts in educational delivery models due to the Covid-19 pandemic left schools and educators grappling with finding educational solutions for students with little guidance and support from policy makers and governing bodies (McKenna et al.,

2021; Murray et al., 2021; Samuellsen et al., 2020). Although the participants did not explicitly state technological issues and the digital divide as particular challenges for them, it is important to recognize that the participants acknowledged that they had to learn and adapt to online learning modalities without external supports. This suggests a lack of training and preparation on technology management and delivery which was reflected through several studies where teachers indicated similar experiences (Aslan et al., 2022; Kruzewska et al. 2020, Yildirim 2021, Syarah et al., 2020). Furthermore, studies indicated that educators adapted to the sudden changes without cohesive disaster response protocols in place (Samuellsen et al., 2020). While the novel experience of living through a global health disaster has left everyone, including leadership, struggling to adapt, the experience highlighted the lack of disaster response planning and protocols in education. This experience serves as a wake-up call for leaders and legislators, as well as educational and training institutions, to consider disaster response as a critical factor in planning and training. As one of the primary supports for children, educators need to have proper training and supports available for them as well, particularly during times of disaster and throughout the recovery period (Rose & Bimm, 2021). Moreover, clear and actionable emergency protocols should be considered as part of yearly planning for all educational institutions.

Parent and Community Education

The participants in the study indicated that they view parents, caregivers, and the community as partners in children's education. While most of the participants expressed their gratitude for parental support throughout the pandemic, some teachers shared that upon returning to the classrooms, some parents had incongruent expectations about learning loss, pedagogies and teaching strategies, and children's development. The proliferation of online parenting forums

and information on social media has led to parents acquiring unrealistic expectations that might not be reflective of actual developmentally appropriate norms and practices. To this end, educators expressed their concerns about the need for educational institutions and regulatory bodies to provide research-based information for parents and community members to draw from. Educating stakeholders can help foster better cooperation and collaboration between educators and caregivers, while setting realistic and balanced expectations (Aslan et al., 2022) about child development.

Long Term Effects of Covid-Related Trauma

One of the most critical findings in this research indicates issues concerning the potential traumatic effects of screen time and the pandemic experience on children. Participants shared observations that indicate trauma responses from children such as regression of play, self-regulation and communication issues, separation anxieties, and individualistic behaviors (Monteiro et al., 2022; Sapsağlam & Birak, 2023; Van de Heuvel et al., 2019; APA, 2020; Gülmez & Ordu, 2022; Sciaraffa et al., 2018). Although research about the effects of the pandemic on students is now emerging, not much is known about the long-term effects of this form of trauma on children (Lee, 2020; Linnavalli & Kalland, 2021; McKenzie, 2021; Rose & Bimm, 2021; Sapsağlam & Birak, 2023). According to Rose and Bimm (2021), most of the research focuses on school disaster preparedness but fails to consider long-term recovery responses. Furthermore, existing research takes on adult-centric perspectives and fails to recognize the value of learning about children's experiences, necessitating the need for child-centered research (Rose & Bimm, 2021). The need for research on the long-term effects of the pandemic is of particular importance because research indicates that trauma can also manifest in children who start school several years after a disaster (Smilde-van den Doel et al., 2006).

Research Gaps

The experience of living through a global pandemic has been an unprecedented event of our lifetime. Research over the past three years has focused on the online learning experience (Alan, 2021; Barabási, 2021; Dayal & Tikko, 2021; Inan, 2021; Murray et al., 2021; Yildirim, 2021), educator opinions (Aslan et al., 2022; Dayal and Tiko 2020; Faridah et al., 2021; Inan, 2021; Kruzewska et al., 2020; Murray et al., 2022; Syarah et al. 2020; Yildirim, 2021), teacher experience (Cam & Cam, 2023; Hebebcı et al., 2020; UNESCO, 2020, O’Keefe & McNally, 2022), management strategies (Ahwireng, 2022; Cahapay, 2020 Esposito & Principi, 2020; Inan, 2021; Melnick & Darling- Hammond, 2020; Melnick & Plasencia, 2021; Penna, 2020), and the effects of Covid-19 in education (APA, 2020; Gülmez & Ordu, 2022; Monteiro et al., 2022; Sapsağlam & Birak, 2023; Sciaraffa et al., 2018; Van de Heuvel et al., 2019). While research about the return to in-person instruction is emerging, little is still known about how the traumatic effects of the pandemic have affected the transition back to the classrooms (Gülmez & Ordu, 2022). Most of the research has been focused on the adaptation process from educators’ perspectives but fails to consider student experience and parental input (Kahraman, & Apak, 2021). Furthermore, while most of the available research on early childhood in the context of the Covid-19 pandemic has been generalizable in terms of pedagogical strategies, educator experience, and issues and challenges, very little research specifically focuses on specialized and highly play-based institutions and their experiences, thereby creating a gap in the literature about adapting play-based pedagogies in the “new normal” (Inan, 2021). Engaging in research about the effects of the pandemic on children and how it manifests in the classrooms, as well as the evolution of play and play-based pedagogies throughout the pandemic experience, can help

educators, families, and legislators better understand and provide the necessary supports to aid in trauma recovery and strengthen children's play.

Appendix A:
Teacher Interview Protocol

Opening:

1. Re-state purpose of the research and ask permission to record.

“This interview is going to be recorded for research purposes. Please let me know if you do not agree to being recorded. You may request that the recording be stopped at any time, at which point, your responses shall be recorded via voice transcription for note taking purposes. Do you authorize DePaul University to take and use video and audio recordings of this interview in connection with the research study? The video and audio recordings will be destroyed after the research study is completed, and data will be coded using pseudonyms to ensure and protect your privacy.”

2. Reiterate that the entire interview shall focus on play-based learning in general, so all questions shall be framed to reflect a play-based learning perspective.
3. Clearly state “The recording starts now” to inform the participant exactly when the recording shall begin.

Pre-pandemic Learning:

1. Please describe play-based learning in your class pre-pandemic for me.
2. Please describe how play-based learning looked in your classroom pre-pandemic.

Shift to Online Learning:

1. Did the school react to teacher and student needs when the pandemic started? If so, in what ways? If not, why not?
2. Were you supported by your school administrators during the shift to

online learning? If so, in what ways? If not, why not?

4. How did school administrators support the incorporation of play-based learning in your pedagogy during this shift? If so, in what ways? If not, why not?
5. How did you respond to the situation?
6. How did you re-imagine play during the shift to online learning?
7. How did you feel about re-imagining play during this shift to online learning?
8. What were the issues and challenges you encountered in re-imagining play during the shift to online learning?

On-going In-Person Learning:

1. Please describe play-based learning in your current class setup.
2. What Covid related measures do you implement in school/ class?
3. How did those Covid-related measures affect play-based learning in your school/ class?
4. How did you re-imagine play when you returned to in-person learning?
5. How are you feeling about your current play-based learning experience?
6. How have expectations of school leadership and parents changed about how they perceive play and play-based learning over the pandemic?
7. What issues and/or challenges have you encountered regarding play-based learning throughout your teaching experience during the pandemic?
8. How have your perceptions about play and play-based learning changed throughout the pandemic?
9. What reflections do you have regarding your overall experience in play-based learning during the pandemic?

Closing:

1. Discuss options for follow-up questions or clarifications.

Appendix B:
Administrator Interview Protocol

Opening:

1. Re-state purpose of the research and ask permission to record.

“This interview is going to be recorded for research purposes. Please let me know if you do not agree to being recorded. You may request that the recording be stopped at any time, at which point, your responses shall be recorded via voice transcription for note taking purposes. Do you authorize DePaul University to take and use video and audio recordings of this interview in connection with the research study? The video and audio recordings will be destroyed after the research study is completed, and data will be coded using pseudonyms to ensure and protect your privacy.”

2. Reiterate that the entire interview shall focus on play-based learning in general, so all questions shall be framed to reflect a play-based learning perspective.
3. Clearly state “The recording starts now” to inform the participant exactly when the recording shall begin.

Pre-pandemic Learning:

1. Please describe play-based learning in your school pre-pandemic for me.
2. Please describe how play-based learning looked in your school pre-pandemic.

Shift to Online Learning:

1. Did the school respond to teacher and student needs when the pandemic started? If so, in what ways? If not, why not?

2. How did school administration support the shift to online learning during the early part of the pandemic?
3. If your school did not transition to online learning, how did you adapt to the challenges of the pandemic?
4. How did school administrators support the incorporation of play-based learning in your pedagogy during this shift? If so, in what ways? If not, why not?
5. How did the school re-imagine play during the shift to online learning?
6. How did you feel about re-imagining play during this shift to online learning?
7. What were the issues and challenges you encountered in re-imagining play during the shift to online learning?

On-going In-Person Learning:

1. Please describe play-based learning in your current school setup.
2. What Covid related measures do you implement in school/ class?
3. How did those Covid-related measures affect play-based learning in your school/ class?
4. How did you re-imagine play when you returned to in-person learning?
5. How are you feeling about your current play-based learning experience?
6. How have expectations of school leadership and parents changed about how they perceive play and play-based learning over the pandemic?
7. What issues and/or challenges have you encountered regarding play-based learning throughout your administrative experience during the pandemic?
8. How have your perceptions about play and play-based learning changed throughout the pandemic?

9. What reflections do you have regarding your overall experience in play-based learning during the pandemic?

Closing:

1. Discuss options for follow-up questions or clarifications.

References

- Abderrahim, L., & Plana, M. G. C. (2021). A theoretical journey from social constructivism to digital storytelling. *The EuroCALL Review*, 29(1), 38-49.
- Aden, F., & Theodotou, E. (2019). Reggio Emilia and the arts approach: Two exceptional examples of multimodal learning in early years. *Journal of Global Education and Research*, 3(2), 158-167.
- Adeyinka, A.A. (2019). Environmental variables as predictors of senior secondary school students' attitude to and achievement in Yoruba grammar in Lagelu local government, Oyo State. *International Journal of the Guild of Contemporary Academic Researchers*, 4(1).17-25.
- Ahmad, S., Ch, A. H., Batool, A., Sittar, K., & Malik, M. (2016). Play and cognitive development: Formal operational perspective of Piaget's theory. *Journal of Education and Practice*, 7(28), 72–79.
- Ahwireng, D. (2022). Confronting COVID-19 whilst elementary school students resume in-person learning. *Journal of Education and Learning*, 11(3), 64-76.
- Aktas, I. (2022). Research trends on the use of technology in early childhood science education: Bibliometric mapping and content analysis. *Shanlax International Journal of Education*, 10, 284-300.
- Alberola-Mulet, I., Iglesias-Martínez, M. J., & Lozano-Cabezas, I. (2021). Teachers' beliefs about the role of digital educational resources in educational practice: A qualitative study. *Education Sciences*, 11(5), 239.
- Alan, Ü. (2021). Distance education during the COVID-19 pandemic in Turkey: Identifying the needs of early childhood educators. *Early Childhood Education Journal*, 49(5), 987-994.

- Ali, A., McLachlan, C., McLaughlin, T., Mugridge, O., Conlon, C., Mumme, K., & Knightbridge-Eager, T. (2021). Fundamental movement skills and physical activity of 3–4-Year-old children within early childhood centers in New Zealand. *Children*, 8(9), 742.
- American Academy of Pediatrics. (2013). The crucial role of recess in school. A position statement. *Pediatrics*, 131, 183–188.
- American Academy of Pediatrics (AAP). (2016). Council on communications and media. *Media and Young Minds*. *Pediatrics*, 138(5), e20162591. <https://doi.org/10.1542/peds.2016-2591>
- American Academy of Pediatrics (AAP). (2019). *Digital guidelines: Promoting healthy technology use for children*. <https://www.apa.org/topics/healthy-technology-use-children>
- American Academy of Pediatrics (AAP). (2022). *COVID-19 guidance for safe schools and promotion of in-person learning*. <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Washington: American Psychiatric Association.
<https://doi.org/10.1176/appi.books.9780890425596>
- American Psychological Association. (2020). *APA COVID-19 information and resources*.
<https://www.apa.org/topics/covid-19/index#education>
- Andrew, A., Cattan, S., Costa Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A., & Sevilla, A. (2020). Inequalities in children's experiences of home learning during the COVID-19 lockdown in England. *Fiscal studies*, 41(3), 653-683.
- Angelinah, S. M., & Shila, M. R. (2022). The viability of play in teaching number sense to grade 3 learners. *Mathematics Teaching Research Journal*, 14(4), 17-35.

- Arghode, V., Brieger, E. W., & McLean, G. M. (2017). Adult learning theories: Implications for online instruction. *European Journal of Training and Development*, 41(7), 593–609.
<https://doi.org/DOI 10.1108/EJTD-02-2017-0014>
- Aslan, S., Agrawal, A., Alyuz, N., Chierichetti, R., Durham, L. M., Manuvinakurike, R., Okur, E., Sahay, S., Sharma, S., Sherry, J., Raffa, G., & Nachman, L. (2022). Exploring kid space in the wild: A preliminary study of multimodal and immersive collaborative play-based learning experiences. *Educational Technology Research and Development*, 70(1), 205–230.
<https://doi.org/10.1007/s11423-021-10072-x>
- Aslan, S., Li, Q., Bonk, C. J., & Nachman, L. (2022). An overnight educational transformation: How did the pandemic turn early childhood education upside down?. *Online Learning*, 26(2), 52-77.
- School responses in Illinois to the coronavirus (COVID-19) pandemic.* (2022). Ballotpedia.
[https://ballotpedia.org/School_responses_in_Illinois_to_the_coronavirus_\(COVID-19\)_pandemic](https://ballotpedia.org/School_responses_in_Illinois_to_the_coronavirus_(COVID-19)_pandemic)
- Barabási, T. (2021). The Situation of online preschool learning from early childhood teachers' perspective. *Acta Didactica Napocensia*, 14(2), 216-230.
- Bavlı, B. & Uslu Kocabaş, H. (2022). The Montessori educational method: Communication and collaboration of teachers with the child. *Participatory Educational Research*, 9(1), 443-462.
- Bay, D. N. (2020). Examining the plays that preschool children prefer and the characteristics shaping them using draw and tell technique. *European Journal of Educational Sciences*, 7(2), 91-115.
- Benes, S., Finn, K. E., Sullivan, E. C., & Yan, Z. (2016). Teachers' perceptions of using movement in the classroom. *Physical Educator*, 73(1), 110.

- Billups, F. D. (2021). *Qualitative Data Collection Tools: Design, Development, and Applications* (Vol. 55). SAGE Publications, Inc.
- Blackwell, C. K., Lauricella, A. R., & Wartella, E. (2014). Factors influencing digital technology use in early childhood education. *Computers & Education, 77*, 82-90.
- Blackwell, C. K., Lauricella, A. R., Wartella, E., Robb, M., & Schomburg, R. (2013). Adoption and use of technology in early education: The interplay of extrinsic barriers and teacher attitudes. *Computers & Education, 69*, 310–319.
- Bloomberg, L., & Volpe, M. (2018). *Completing your qualitative dissertation: A roadmap from beginning to end*. Sage.
- Blucher, M., Aspden, K., & Jackson, J. (2018). Play-based learning in an Aotearoa New Zealand classroom: Child, parent, teacher, and school-leader perspectives. *Research Information for Teachers, 3*, 51-59. <https://doi.org/10.18296/set.0118>
- Bodrova, E., & Leong, D. J. (2019). Making play smarter, stronger, and kinder: Lessons from tools of the mind. *American Journal of Play, 12*(1), 37–53.
- Boyd, D., & Bath, C. (2017). Capturing student perspectives through a “Reggio” lens. *International Journal of Teaching and Learning in Higher Education, 29*(2), 192-200.
- Boz, M., Altunsöz, I. H., & Altinisik, Y. (2022). Impact of teacher implemented activities and free play on preschool children's physical activity at indoor playground markings. *Southeast Asia Early Childhood, 11*(1), 18-34.
- Braun, V. & Clarke, V. (2019) Reflecting on reflexive thematic analysis. *Qualitative Research in Sport Exercise and Health, 11*(4), 589–597.
- Brown, M., Burriss, K. G., Snead, D., & Burriss, L. L. (2020). Teacher practices, time for physical activity, and the school day: A preliminary analysis. *International Journal of the*

Whole Child, 5(1), 39-52.

- Bull, F. C., Al-Ansari, S. S., Biddle, S., Borodulin, K., Buman, M. P., Cardon, G., ... & Willumsen, J. F. (2020). World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British journal of sports medicine*, 54(24), 1451-1462.
- Burleigh, C., & Wilson, A. (2023). Forced isolation in an era of inclusion within US K-12 public school communities. *Journal of Educational Research and Practice*, 13(1), 4.
- Bynum, G. L. (2015). Conceptions of childhood in the educational philosophies of John Locke and John Dewey. In *Forum on Public Policy Online*, 2015(2). Oxford Round Table.
- Cahapay, M. B. (2020). A reconceptualization of learning space as schools reopen amid and after COVID-19 pandemic. *Asian Journal of Distance Education*, 15(1), 269–276.
- Cam, E., & Cam, B.Y. (2023). Web pedagogical content knowledge of early childhood education professionals. *Journal of Educational Technology and Online Learning*, 6(1), 162-183.
- Carolan, M. E., & Connors-Tadros, L. (2015). Approaches to state pre-k eligibility policy: Considerations for policy makers in revising policy to increase access for high needs children (CEELO Policy Report). *Center on Enhancing Early Learning Outcomes*.
https://ceelo.org/wpcontent/uploads/2015/05/ceelo_policy_report_prek_eligibility_approaches.pdf
- Carolan, P. L., McIsaac, J. L. D., Richard, B., Turner, J., & McLean, C. (2021). Families' experiences of a universal play-based early childhood program in Nova Scotia: Implications for policy and practice. *Journal of Research in Childhood Education*, 35(4), 550-566.
- Centers for Disease Control and Prevention. (2019). Preventing adverse childhood experiences: Leveraging the best available evidence. *Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention*, 40.

<https://www.cdc.gov/violence-prevention/pdf/preventingACES.pdf>

Centers for Disease Control and Prevention. (2020). *Interim clinical guidance for management of patients with confirmed coronavirus disease (COVID-19)*.

Centers for Disease Control and Prevention. (2021). Science brief: Transmission of SARS-CoV-2 in K-12 schools and early care and education programs. Updated.

https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/transmission_k_12_schools.html#schools-cov2-transmission

Ceylan, R., & Gok Çolak, F. (2019). The effect of drama activities on the life skills of five-year-old children. *International Education Studies*, 12(8), 46–58.

<https://doi.org/10.5539/ies.v12n8p46>

Charara, J., Miller, E. A., & Krajcik, J. (2021). Knowledge in use: Designing for play in kindergarten science contexts. *Journal of Leadership, Equity, and Research*, 7(1), n1.

Cheng, M. (2023). *WHO downgrades COVID-19 pandemic, says it's no longer global emergency*. PBS. [https://www.pbs.org/newshour/health/who-downgrades-covid-19-pandemic-says-its-no-longer-global-emergency#:~:text=GENEVA%20\(AP\)%20%E2%80%94%20The%20World,least%20%20million%20people%20worldwide](https://www.pbs.org/newshour/health/who-downgrades-covid-19-pandemic-says-its-no-longer-global-emergency#:~:text=GENEVA%20(AP)%20%E2%80%94%20The%20World,least%20%20million%20people%20worldwide).

Claxton, G. (2018). Deep rivers of learning. *Phi Delta Kappan*, 99(6), 45-48.

<https://doi.org/10.1177/0031721718762422>

Corpuz, J. C. G. (2021). Adapting to the culture of 'new normal': an emerging response to COVID-19. *Journal of Public Health*, 43(2), e344-e345.

Craig, S. E. (2016). *Trauma sensitive schools: Learning communities transforming children's lives, K-5* (Illustrated ed.). Teachers College Press.

- Creswell, J. W. (2009). *Research designs: Qualitative, quantitative, and mixed methods approaches*. 3rd ed. Sage.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design (International Student Edition): Choosing among five approaches*. Sage.
- Danniels, E., & Pyle, A. (2018). Defining play-based learning. *Encyclopedia on early childhood development*, 1-5.
- Darling-Hammond, L., & Hyler, M. E. (2020). Preparing educators for the time of COVID... and beyond. *European Journal of Teacher Education*, 43(4), 457-465.
- Dastpak, M., Behjat, F., & Taghinezhad, A. (2017). A comparative study of Vygotsky's perspectives on child language development with nativism and behaviorism. *International Journal of Languages' Education and Teaching*, 5(2), 230–238.
<https://doi.org/10.18298/ijlet.1748>
- Dayal, H. C., & Tiko, L. (2020). When are we going to have the real school? A case study of early childhood education and care teachers' experiences surrounding education during the COVID-19 pandemic. *Australasian Journal of Early Childhood*, 45(4), 336–347.
- Declaration on the importance of play. (2014). International Play Association.
<https://www.ipaworld.org>.
- Demetron, G. (2022). Mediating work and culture through Dewey's integrative vision of vocational education. *Adult Literacy Education*, 4(2), 4-17.
- Developmentally appropriate practice (DAP) position statement. (2020). *National Association for the Education of Young Children*. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/dap-statement_0.pdf
- Dewey, J. (1902). *The Child and the Curriculum*.

Dewey, J. (1910). *How We Think*. D.C. Heath & Co.: Boston, MA, USA; New York, NY, USA; Chicago, IL, USA.

Dewey, J. (1975). *Democracy and Education*. University of Chicago Press.

Dewey, J. (1997). *Democracy and Education: An Introduction to the Philosophy of Education*. Simon & Schuster.

Dewey, J. (2001). *The School and Society & The Child and the Curriculum*. Dover Publications.

Dewey, J. (2011). *Democracy and Education*. Simon and Brown.

Docken, E. M. (2017). *Support for Play in Public School Kindergarten Classrooms: A Descriptive Multiple Case Study* (Doctoral dissertation, Concordia University (Oregon)). ProQuest Dissertations Publishing.

Dockett, S. (2010). The challenge of play for early childhood educators. In *Rethinking play and pedagogy in early childhood education* (pp. 40-55). Routledge.

Drew, C. (2019). 'We call this "play", however...': Navigating 'play anxiety' in early childhood education and care markets. *Journal of Early Childhood Research*, 17(2), 116-128.

Dodd, H. F., FitzGibbon, L., Watson, B. E., & Nesbit, R. J. (2021). Children's play and independent mobility in 2020: Results from the British children's play survey. *International Journal of Environmental Research and Public Health*, 18(8), 4334.

<https://doi.org/10.3390/ijerph18084334>

Doliopoulou, E., & Rizou, C. (2012). Greek kindergarten teachers' and parents' views about changes in play since their own childhood. *European Early Childhood Education Research Journal*, 20(1), 133-147.

Dunckley, V.L. (2014). *Gray matters: Too much screen time damages the brain*.

<https://www.psychologytoday.com/intl/blog/mental-wealth/201402/gray-matters-too->

much-screentime-damages-the-brain

- Dunst, C. J., Bruder, M. B., Maude, S. P., Schnurr, M., Van Polen, A., Clark, G. F., Winslow, A., & Gethmann, D. (2019). Professional development practices and practitioner use of recommended early childhood intervention practices. *Journal of Teacher Education and Educators*, 8(3), 229–246.
- Duran, M. (2021). The effects of COVID-19 pandemic on preschool education. *International Journal of Educational Methodology*, 7(2), 249-260.
- Dýrfjörð, K., & Magnúsdóttir, B. R. (2016). Privatization of early childhood education in Iceland. *Research in Comparative and International Education*, 11(1), 80-97.
- Early learning and educational technology policy brief. (2016). U.S. Department of Education. <https://tech.ed.gov/files/2016/10/Early-Learning-Tech-Policy-Brief.pdf>
- Edwards, S. (2017). Play-based learning and intentional teaching: Forever different?. *Australasian Journal of Early Childhood*, 42(2), 4-11.
- Edwards, S., Mantilla, A., Grieshaber, S., Nuttall, J., & Wood, E. (2020). Converged play characteristics for early childhood education: Multi-modal, global-local, and traditional-digital. *Oxford Review of Education*, 46(5), 637–660. <https://doi.org/10.1080/03054985.2020.1750358>
- Ernest, J. M., Nicholas, A., Vardanyan, S., Hafiz, F., Alazemi, M., & Dixon, D. (2019). Childhood remembered: Reflections on the role of play for holistic education in Armenia, Kuwait, Saudi Arabia, the USA, and Wales. *International Journal of the Whole Child*, 4(1), 5-19.
- Esposito, S., & Principi, N. (2020). School closure during the coronavirus disease 2019

- (COVID-19) pandemic: An effective intervention at the global level? *JAMA Pediatrics*, 174(10), 921-922. <https://doi.org/10.1001/jamapediatrics.2020.1892>
- Faridah, L., Ekawardhani, S., Wiraswati, H. L., Fauziah, N., Aviani, J. K., & Ramadan, D. (2021). Experiences and challenges of Distance Learning during Covid-19 pandemic from educators' point of view: A review. *Education Quarterly Reviews*, 4(3).
- Feldman, D. (2019). Children's play in the shadow of war. *American journal of play*, 11(3), 288-307.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*. 14(4), 245–258.
[https://doi.org/10.1016/s0749-3797\(98\)00017-8](https://doi.org/10.1016/s0749-3797(98)00017-8)
- Felix, F., Speech, A. L., Kumaraswamy, S., Anand, H. A., Fathima, D., Sameeha, E. F., & Fida, F. (2021). Impact of screen time with children 2-5 years a pilot study. *Strength for Today and Bright Hope for Tomorrow Volume 21: 11 November 2021 ISSN 1930, 2940, 24*.
- Frechette, J., Bitzas, V., Aubry, M., Kilpatrick, K., & Lavoie-Tremblay, M. (2020). Capturing lived experience: Methodological considerations for interpretive phenomenological inquiry. *International Journal of Qualitative Methods*, 19, 1609406920907254.
- Friedman, C. (2020). Students' major online learning challenges amid the covid-19 pandemic. *Journal of Pedagogical Sociology and Psychology*, 1(1), 45-52.
- Flynn, S. V., & Korcuska, J. S. (2018). Credible phenomenological research: A mixed-methods study. *Counselor Education and Supervision*, 57(1), 34-50.
- Flynn, R. M., Richert, R. A., & Wartella, E. (2019). Play in a digital world: How interactive

- digital games shape the lives of children. *American Journal of Play*, 12(1), 54-73.
- Foulds, K., & Bucuvalas, A. (2019). Playing every day on "Sesame Street": Global learnings from a play-based pilot intervention in India, Mexico, and South Africa. *American Journal of Play*, 12(1), 17-36.
- Gasibat, Q., Aymen, A., & Gasibat, M. (2021). Should schools reopen during the COVID-19 pandemic? *Journal of Medicine*, 22, 57–59. <https://doi.org/10.3329/jom.v22i1.51393>
- Germeroth, C., Bodrova, E., Day- Hess, C., Barker, J., Sarama, J., Clements, D. H., & Layzer, C. (2019). Play it high, play it low: Examining the reliability and validity of a new observation tool to measure children's make-believe Play. *American Journal of Play*, 11(2), 183–221.
- Gibbs, G. R. (2018). *Analyzing qualitative data* (Vol. 6). Sage.
- Gilliam, W. S., Maupin, A. N., Reyes, C. R., Accavitti, M., & Shic, F. (2016). Do early educators' implicit biases regarding sex and race relate to behavior expectations and recommendations of preschool expulsions and suspensions. *Yale University Child Study Center*, 9(28), 1-16.
- Givens, R., & Cowden, R. (2018). Seeking ancient paths: Why philosophy should guide teacher education programs. *Issues in Teacher Education*, 27(2), 24-36.
- Gjelaj, M., Buza, K., Shatri, K., & Zabeli, N. (2020). Digital Technologies in Early Childhood: Attitudes and Practices of Parents and Teachers in Kosovo. *International Journal of Instruction*, 13(1), 165-184.
- Gnaoré, K. (2021). The role of movement and sensorial stimuli for therapy and education: A comparative study. *Journal of Educational Sciences*, 22, 19-36.
- Gomes, J., Almeida, S. C., Kaveri, G., Mannan, F., Gupta, P., Hu, A., & Sarkar, M. (2021). Early childhood educators as covid warriors: Adaptations and responsiveness to the pandemic

- across five countries. *International Journal of Early Childhood*, 53(3), 345-366.
- Gray, P. (2017). What exactly is play, and why is it such a powerful vehicle for learning? *Topics in Language Disorders*, 37(3), 217-228. <https://doi.org/10.1097/tld.0000000000000130>
- Guernsey, L. (2017). *Into the minds of babes: How screen time affects children from birth to age five*. Basic Books. <https://catalog.hathitrust.org/Record/005599695>
- Guirguis, R. (2018). Should we let them play? Three key benefits of play to improve early childhood programs. *International Journal of Education and Practice*, 6(1), 43-49.
- Guirguis, R. V., & Longley, J. M. (2021). Play and trauma in young children during a pandemic. *Dimensions of Early Childhood*, 49(1), 24-27.
- Gülmez, D., & Aydan, O. R. D. U. (2022). Back to the classroom: Teachers' views on classroom management after Covid-19. *International Journal of Modern Education Studies*, 6(2), 257-286.
- Gupta, A. (2018). How neoliberal globalization is shaping early childhood education policies in India, China, Singapore, Sri Lanka and the Maldives. *Policy Futures in Education*, 16(1), 11-28.
- Hao, Y., & Flear, M. (2016). Pretend sign created during collective family play: A cultural-historical study of a child's scientific learning through everyday family play practices. *International Research in Early Childhood Education*, 7(2), 38-58.
- Hebebcı, M. T., Bertiz, Y., & Alan, S. (2020). Investigation of views of students and teachers on distance education practices during the Coronavirus (COVID-19) pandemic. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 267-282.
- Hedegaard, M. (2016). Imagination and emotion in children's play: A cultural-historical approach. *International Research in Early Childhood Education*, 7(2), 59-74.

- Henricks, T. S. (2020). Play studies: A brief history. *American Journal of Play*, 12(2), 117–155.
- Hershberg, R. M. (2014). Constructivism. In *The Sage Encyclopedia of Action Research* (pp. 183–186). SAGE Publications, Inc. <https://dx.doi.org/10.4135/9781446294406.n83>
- Howard, J. (2019). Securing the future of play in early childhood education: Journeying with children toward the essence of play to evidence its function and value. *The Sage Handbook of Developmental Psychology and Early Childhood*. SAGE Publications, 201-222.
- Hu, B. Y., Johnson, G. K., Teo, T., & Wu, Z. (2020). Relationship between screen time and Chinese children's cognitive and social development. *Journal of Research in Childhood Education*, 34(2), 183-207.
- Huang, H. M. (2002). Toward constructivism for adult learners in online learning environments. *British Journal of Educational Technology*, 33(1), 27–37.
- Huddleston- Casas, C. (2023). Gap widens for achieving fully funded early childhood system in Nebraska. Buffett Early Childhood Institute.
- Hunter, J., Graves, C., & Bodensteiner, A. (2017). Adult perspectives on structured vs. unstructured play in early childhood environmental education. *International Journal of Early Childhood Environmental Education*, 5(1), 89-92.
- Hunter, J. (2019). Supporting teachers to successfully implement a play-based learning approach. *Kairaranga*, 20(2), 16-29.
- Hunter, J., Syversen, K. B., Graves, C., & Bodensteiner, A. (2020). Balancing outdoor learning and play: Adult perspectives of teacher roles and practice in an outdoor classroom. *International Journal of Early Childhood Environmental Education*, 7(2), 34-50.

- Inan, H. Z. (2021). Understanding the Reggio Emilia-inspired literacy education: A meta-ethnographic study: Reggio Emilia-inspired literacy education. *International Journal of Curriculum and Instruction*, 13(1), 68-92.
- Inan, H. Z. (2021). Challenges of distance/online and face-to-face education in the new normal: Experiences of Reggio Emilia-inspired early childhood educators in turkey. *Pedagogical Research*, 6(1).
- James, O. R. (2021). The Political Economy of Pandemic Pods. *NYUL Rev. Online*, 96, 89.
- Johnstone, A. (2022). An inquiry into teachers' implementation of play-based learning aligned approaches within senior primary classes. *Kairaranga*, 23(1), 17-34.
- Johnson, C.W., & Parry, D.C. (Eds.). (2015). *Fostering social justice through qualitative inquiry: A methodological guide*. Left Coast Press, Inc.
- Johnson, K. (2014). Creative connecting: Early childhood nature journaling sparks wonder and develops ecological literacy. *International Journal of Early Childhood Environmental Education*, 2(1), 126-139.
- Johnson, N., Veletsianos, G., & Seaman, J. (2020). U.S. faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. *Online Learning*, 24(2), 6-21. <https://doi.org/10.24059/olj.v24i2.2285>
- Johnson, P. (2013). Schoolyard geographies: The influence of object-play and place-making on relationships. *Review of International Geographical Education Online*, 3(1), 77-92.
- Jones, A. E., Henzi, S., & Barrett, L. (2019). A natural history of repetition. *Journal of Montessori Research*, 5(2), 15–44. <https://doi.org/10.17161/jomr.v5i2.7407>
- Joseph, G. V., Elizabeth, S., Vargheese, S., & Thomas, J. (2022). The impact of screen time and mobile dependency on cognition, socialization and behaviour among early childhood

- students during the Covid pandemic: Perception of the parents. *Digital Education Review*, 41, 114-123.
- Josephidou, J., & Kemp, N. (2022). A life "in and with nature?" Developing nature engaging and nature enhancing pedagogies for babies and toddlers. *Global Education Review*, 9(2), 5-22.
- Kahraman, P., & Apak, Y. M. (2021). Preschool teacher opinions on adaptation to school during the Covid-19 pandemic. *International Online Journal of Primary Education (IOJPE)*, 10(2), 432-455.
- Karaca, N. H. (2020). Development process of scale for the attitudes towards risky play at early childhood (SATRPEC) - Parent form. *International Journal of Contemporary Educational Research*, 7(1), 165-176. <https://doi.org/10.33200/ijcer.657518>
- Kardes, S., & Dokumaci, C. (2021). The effect of media communication tools on children during the COVID-19 pandemic. *Research in Pedagogy*, 11(2), 625-638.
- Kerker, B. D., Rojas, N. M., Dawson-McClure, S., & Gonzalez, C. (2023). Re-imagining early childhood education and school readiness for children and families of color in the time of COVID-19 and beyond. *American Journal of Health Promotion*, 37(2), 270-273.
- Khalil, N., Aljanazrah, A., Hamed, G., & Murtagh, E. (2022). Exploring teacher educator's perspectives of play-based learning: A mixed method approach. *Education Sciences*, 12(2). <https://doi.org/10.3390/educsci12020095>
- Kim, S. (2018). *Pretend play and language development among preschool children: A meta-analysis* (Master's Thesis, Kansas State University). K-State Research Exchange.
- King, P. (2023). The impact of COVID-19 on playwork practice. *Child Care in Practice*, 29(2), 205-221.
- Kleppe, R. (2018). Affordances for 1-to 3-year-olds' risky play in Early Childhood Education

- and Care. *Journal of early childhood research*, 16(3), 258-275.
- Kodsi, S. H. (2022). Constructive play in Waldorf and Normative preschools in Israel: technological thinking and design process during free play. *International Journal of Technology and Design Education*, 32(2), 735-748.
- Kruszewska, A., Nazaruk, S., & Szewczyk, K. (2022). Polish teachers of early education in the face of distance learning during the COVID-19 pandemic—the difficulties experienced and suggestions for the future. *Education 3-13*, 50(3), 304-315.
- Kuset, S., Ozgem, K., Sasmacioglu, E., Guldal, S. K. (2021). Evaluation of the impact of distance education on children in preschool period: teachers' opinions. *Near East University Journal of Education Faculty*. 4(1):78-87.
- Lee, B., & Raszka, W. V. (2020). COVID-19 transmission and children: the child is not to blame. *Pediatrics*, 146(2).
- Lee, J. (2020). Mental health effects of school closures during COVID-19. *The Lancet Child & Adolescent Health*, 4(6), 421.
- Lee, P., Hu, Y., Chen, P., Huang, Y., & Hsueh, P. (2020). Are children less susceptible to COVID-19? *Journal of Microbiology, Immunology, and Infection*, 53(3), 371–372.
- Linnavalli, T., & Kalland, M. (2021). Impact of COVID-19 restrictions on the social-emotional wellbeing of preschool children and their families. *Education Sciences*, 11(8), 435.
- Little, M. H., & Cohen-Vogel, L. (2016). Too much too soon? An analysis of the discourses used by policy advocates in the debate over kindergarten. *Education Policy Analysis Archives*, 24(106). <https://dx.doi.org/10.14507/epaa.24.2293>
- Loebach, J., & Cox, A. (2020). Tool for observing play outdoors (TOPO): A new typology for capturing children's play behaviors in outdoor environments. *International journal of*

- environmental research and public health*, 17(15), 5611.
- Lozon, C., & Brooks, J. G. (2019). The potential of purposeful play: Using the lens and language of crosscutting concepts to enhance the science and engineering practices of play. *International Journal of the Whole Child*, 4(2), 88-94.
- Lundtofte, T. E. (2020). Young children's tablet computer play. *American Journal of Play*, 12(2), 216-232.
- Lunga, P., Esterhuizen, S. & Koen, M. (2022). Play-based pedagogy: An approach to advance young children's holistic development. *South African Journal of Childhood Education*, 12(1), a1133. <https://doi.org/10.4102/sajce.v12i1.1133>
- Lydia, V. P., Baker, P., Jenkins, E., Moore, A., Perrine, C., & Pritchard, H. (2014). *The importance of play: A literature review*. Delores Barr Weaver Policy Center.
- Lynch, M. (2015). More play, please: The perspective of kindergarten teachers on play in the classroom. *American Journal of Play*, 7(3), 347-370.
- Majcen, S. A., & Drvodelić, M. (2022). Quality pedagogical practice in early childhood education institutions relating to children at risk of social exclusion. *Center for Educational Policy Studies Journal*, 12(3), 81-101.
- Malaguzzi, L., & Gandini, L. (1993). For an Education Based on Relationships. *Young Children*, 49(1), 9–12. <http://www.jstor.org/stable/42725534>
- Malaguzzi, L. (1994). Your image of the child: Where teaching begins. *Child Care Information Exchange*, 96, 52–61.
- Malik, R., Hamm, K., Lee, W. F., Davis, E. E., & Sojourner, A. (2020). The coronavirus will make childcare deserts worse and exacerbate inequality. *Center for American Progress*, 22.
- Marshall, D.T., & Bradley-Dorsey, M., (2020). Reopening America's schools: A descriptive

- look at how states and large school districts are navigating fall 2020. *Journal of School Choice*, 14(4), 534-566.
- Maxwell, J. A. (2008). Designing a qualitative study. *The SAGE handbook of applied social research methods*, 2, 214-253.
- Melnick, H., & Plascencia, S. (2021). *COVID-19 in childcare and preschool settings* (School Reopening Series) [Research Brief]. Learning Policy Institute.
- McGinn, A. (2017). Play-based early childhood classrooms and the effect on pre-kindergarten social and academic achievement. *Graduate Research Papers*, 229.
- McKenna, M., Soto-Boykin, X., Cheng, K., Haynes, E., Osorio, A., & Altshuler, J. (2021). Initial development of a national survey on remote learning in early childhood during COVID-19: Establishing content validity and reporting successes and barriers. *Early Childhood Education Journal*, 49(5), 815-827. <https://scholarworks.uni.edu/grp/229>
- McKenzie, E. (2021). Child Resilience in a Global Pandemic. *Dimensions of Early Childhood*, 49(1), 6-13.
- McNally, S. A., & Slutsky, R. (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.
- Media and young minds. (2016). *Pediatrics*, 138(5), e20162591.
<https://doi.org/10.1542/peds.2016-2591>
- Melnick, H., & Darling-Hammond, L. (2020). Reopening schools in the context of COVID-19: Health and safety guidelines from other countries. Policy Brief. *Learning Policy Institute*.
- Merriam, S. B., & Grenier, R.S. (2019). *Qualitative research in practice: Examples for discussion and analysis*. John Wiley & Sons.

- Miller, E. D. (2020). The covid-19 pandemic crisis: The loss and trauma event of our time. *Journal of Loss and Trauma*, 25(6), 1-13.
- Milne, J., & McLaughlin, T. (2018). Examining the teacher's role in play-based learning: One teacher's perspective. *Research Information for Teachers*, 3, 44-50.
<https://doi.org/10.18296/set.0117>
- Mohammed, S., & Kinyo, L. (2020). Constructivist theory as a foundation for the utilization of digital technology in the lifelong learning process. *Turkish Online Journal of Distance Education*, 21(4), 90–109.
- Mohan, M., Celshiya, A. R., & Bhat, J. S. (2022). Development of Play in Pre-Schoolers: Video-Based Analysis of Free and Structured Toy Play Scenario. *Asia-Pacific Journal of Research in Early Childhood Education*, 16(3), 47-69.
- Monteiro, R., Fernandes, S., & Rocha, N. (2022). What do preschool teachers and parents think about the influence of screen-time exposure on children's development? Challenges and opportunities. *Education Sciences*, 12(1), 52.
- Montessori, M. (1948). *The Discovery of the Child*. Kalakshetra Press.
- Montessori, M. (1992). *The Secret of Childhood*.
- Montessori, M. (1995). *The Absorbent Mind*. Henry Holt and Company. (Original work published 1967)
- Montessori, M. (2007a). *The Advanced Montessori Method (Vol. 1)*. Montessori-Pierson. (Original work published 1918)
- Moss, P. (2016). Loris Malaguzzi and the schools of Regio Emilia: Provocation and hope for a renewed public education. *Improving Schools*, 19(2), 167-176.
- Mphahlele, R. S. (2019). Exploring the role of Malaguzzi's 'Hundred Languages of Children' in

- early childhood education. *South African Journal of Childhood Education*, 9(1), 1-10.
- Murray, A. K., Brown, K. E., & Barton, P. (2021). Montessori education at a distance, part 1: A survey of Montessori educators' response to a global pandemic. *Journal of Montessori Research*, 7(1), 1-29.
- Murray, A. K., Brown, K. E., & Barton, P. (2021). Montessori education at a distance, part 2: A mixed-methods examination of Montessori educators' response to a global pandemic. *Journal of Montessori Research*, 7(1), 31-50.
- Musa, R. J., & Adeyinka, A. A. (2021). School environment and methods of teaching as correlates of language skills achievement of pre-primary school pupils in Edo State Nigeria. *Education Quarterly Reviews*, 4(3), 243-251.
- National Association for the Education of Young Children. (n.d.).
<https://www.naeyc.org/resources/topics/play>
- National Scientific Council on the Developing Child. (2020). *Connecting the brain to the rest of the body: Early childhood development and lifelong health are deeply intertwined*, Working Paper No. 15. <https://developingchild.harvard.edu/resources/connectingthe-brain-to-the-rest-of-the-body-early-childhooddevelopment-and-lifelong-health-are-deeplyintertwined/>
- National Survey of Children's Health. (2011-2012). *Adverse childhood experiences* (pp. 116-119). https://www.childhealthdata.org/docs/nsch-docs/sas-codebook_-2011-2012-nsch-v1_05-10-13.pdf
- Ness, D., & Farenga, S. J. (2016). Blocks, bricks, and planks: Relationships between affordance and visuo-spatial constructive play objects. *American Journal of Play*, 8(2), 201-227.
- Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on medical education*, 8, 90-97.

- Nichols, R. M. (2020). *The power of play in early childhood education* (Master's Thesis, Northwestern College).
https://nwcommons.nwciowa.edu/education_masters?utm_source=nwcommons.nwciowa.edu%2Feducation_masters%2F265&utm_medium=PDF&utm_campaign=PDFCoverPages
- Nilsson, M., 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>
- Nolan, A., & Paatsch, L. (2018). (Re)affirming identities: Implementing a play-based approach to learning in the early years of schooling. *International Journal of Early Years Education*, 26(1), 42-55.
- Norling, M., & Lillvist, A. (2016). Literacy-related play activities and preschool staffs' strategies to support children's concept development. *World Journal of Education*, 6(5), 49–63.
<https://doi.org/10.5430/wje.v6n5p49>
- Öçal, T., & Halmatov, M. (2021). Children's mathematics integrated play experiences during play times. *Cta Didactica Napocensia*, 14(2), 99–109. <https://doi.org/10.24193/adn.14.2.8>
- O'Keeffe, C., & McNally, S. (2021). 'Uncharted territory': teachers' perspectives on play in early childhood classrooms in Ireland during the pandemic. *European Early Childhood Education Research Journal*, 29(1), 79-95.
- O'Keeffe, C., & McNally, S. (2022). Teacher experiences of facilitating play in early childhood classrooms during COVID-19. *Journal of Early Childhood Research*, 20(4), 552–0564.
<https://doi.org/10.1177/1476718X221087064>
- Özer Sanal, S., & Erdem, M. (2023). Examination of special education with constructivism: A theoretical and review study. *European Educational Researcher*, 6(1), 1-20.

- Onder, M. (2018). Contributions of plays and toys to children's value education. *Asian Journal of Education and Training*, 4(2), 146–149.
<https://doi.org/10.20448/journal.522.2018.42.146.149>
- Ongoren, S., & Yazlik, D. O. (2019). Investigation of mathematical concept skills of children trained with Montessori approach and MoNE pre-school education program. *European Journal of Educational Research*, 8(1), 9-19.
- Otterborn, A., Schönborn, K., & Hultén, M. (2019). Surveying preschool teachers' use of digital tablets: general and technology education related findings. *International journal of technology and design education*, 29(4), 717-737.
- Özdoğru, A. A. (2019). Cross-cultural psychology of play and early childhood education. In *Early Childhood Development: Concepts, Methodologies, Tools, and Applications* (pp. 1-19). IGI Global.
- Padmanabha, P. (2018). Critical thinking: Conceptual framework. *I-manager's Journal on Educational Psychology*, 11(4), 45-53.
- Panwhar, A. H., Ansari, S., & Ansari, K. (2016). Sociocultural theory and its role in the development of language pedagogy. *Advances in Languages and Literary Studies*, 7(6), 183–188. <https://doi.org/10.7575/aiac.all.v.7n.6p.183>
- Parameswaran, U. D., Ozawa-Kirk, J. L., & Latendresse, G. (2020). To live (code) or to not: A new method for coding in qualitative research. *Qualitative social work*, 19(4), 630-644.
- Park, J. (2019). A comparison of the pretending elements between constructive play and pretend play. *Turkish Online Journal of Educational Technology*, 18(4) 1–6.
- Parrot, H. M., & Cohen, L. E. (2020). Advocating for play: The benefits of unstructured play in public schools. *School Community Journal*, 30(2), 229–254.

- Pascal, C. & Bertram, T. (2021). What do young children have to say? Recognising their voices, wisdom, agency and need for companionship during the COVID pandemic. *European Early Childhood Education Research Journal*, 29(1), 21-34.
- Penna, D. (2020). *As coronavirus lockdowns ease, this is how other countries are gradually reopening schools*. The Telegraph.
- Perry, B. D., & Szalavitz, M. (2017). *The boy who was raised as a dog: And other stories from a child psychiatrist's notebook--What traumatized children can teach us about loss, love, and healing*. Hachette.
- Peterson, S. S., & Greenberg, J. (2017). Teacher intervention to support oral language and literacy in dramatic play contexts. *Texas Journal of Literacy Education*, 5(1), 10–23.
- Petty, A. L., & De Souza, M. T. C. C. (2012). Executive functions development and playing games. *US- China Education Review*, B(9), 795–801.
- Phillips, B., O'Toole, C., McGilloway, S., & Phillips, S. (2022). Montessori, the White Cross, and trauma-informed practice: Lessons for contemporary education. *Journal of Montessori Research*, 8(1), 13-28.
- Piaget, J. (1962). *Play, Dreams and Imitation in Childhood*. Norton.
- Pila, S., Blackwell, C. K., Lauricella, A. R., & Wartella, E. (2019). *Technology in the lives of educators and early childhood programs: 2018 survey*. Center on Media and Human Development, Northwestern University. <https://cmhd.northwestern.edu/wp-content/uploads/2019/08/NAEYC-Report-2019.pdf>
- Pinckney, H. P., Bryan, N., & Outley, C. (2021). Black PlayCrit: Examining the disruption of play for black male youth. *American Journal of Play*, 13(2/3), 210-229.

- Poulain, T., Meigen, C., Sobek, C., Ober, P., Igel, U., Körner, A., Kiess, W., & Vogel, M. (2021). Loss of childcare and classroom teaching during the Covid-19-related lockdown in spring 2020: A longitudinal study on consequences on leisure behavior and schoolwork at home. *Plos one*, *16*(3), e0247949.
- Pyle, A., & Danniels, E. (2017). A continuum of play-based learning: The role of the teacher in play-based pedagogy and the fear of hijacking play. *Early Education and Development*, *28*(3), 274–289. <https://doi.org/10.1080/10409289.2016.1220771>
- Pyle, A., & DeLuca, C. (2017). Assessment in play-based kindergarten classrooms: An empirical study of teacher perspectives and practices. *The Journal of Educational Research*, *110*(5), 457–466. <https://doi.org/10.1080/00220671.2015.1118005>
- Pyle, A., Pyle, M. A., Prioletta, J., & Alaca, B. (2020). Portrayals of play-based learning: Misalignments among public discourse, classroom realities, and research. *American Journal of Play*, *13*(1), 53-86.
- Qutoshi, S. B. (2018). Phenomenology: A philosophy and method of inquiry. *Journal of Education and Educational Development*, *5*(1).
- Ramsden, R., Han, C. S., Mount, D., Loebach, J., Cox, A., Herrington, S., ... & Brussoni, M. (2022). An intervention to increase outdoor play in early childhood education centers (Promoting Early Childhood Outside): Protocol for a pilot wait-list control cluster randomized trial. *JMIR research protocols*, *11*(7), e38365.
- Ravitch, S., & Carl, N. (2021). *Qualitative research: Bridging the conceptual, theoretical, and methodological* (2nd ed). SAGE Publications, Inc.
- RB-Banks, Y., & Meyer, J. (2017). Childhood trauma in today's urban classroom: Moving beyond the therapist's office. *Educational Foundations*, *30*, 63-75.

- Reikerås, E. (2020). Relations between play skills and mathematical skills in toddlers. *ZDM*, 52(4), 703–716. <https://doi.org/10.1007/s11858-020-01141-1>
- Rideout, V., & Robb, M. B. (2020). The commonsense census: Media use by kids age zero to eight. *Common Sense Media*.
https://static1.squarespace.com/static/5ba15befec4eb7899898240d/t/5fb2e58acc0b050e6bd149ed/1605559694662/2020_zero_to_eight_census_FINAL_WEB.pdf
- Rogers, S. (2022). Play in the time of pandemic: Children’s agency and lost learning. *Education 3- 13: International Journal of Primary, Elementary and Early Years Education*, 50(4), 494–505. <https://doi.org/10.1080/03004279.2022.2052235>
- Rose, C. B., & Bimm, M. (2021). Children, schooling, and COVID-19: What education can learn from existing research. *Journal of Teaching and Learning*, 15(2), 3-20.
- Roskos, K., & Christie, J. (2011). The play- literacy nexus and the importance of evidence-based techniques in the classroom. *American Journal of Play*, 4(2), 204–224.
- Rowe, M. L., Salo, V. C., & Rubin, K. (2018). Toward creativity do theatrical experiences improve pretend play and cooperation among preschoolers? *American Journal of Play*, 10(2), 192–207.
- Rubin, H. J., & Rubin, I. S. (2011). *Qualitative interviewing: The art of hearing data*. Sage.
- Saldaña, J. (2016). Goodall’s verbal exchange coding: An overview and example. *Qualitative Inquiry*, 22(1), 36-39.
- Samuelsson, I. P., Wagner, J. T., & Ødegaard, E. E. (2020). The coronavirus pandemic and lessons learned in preschools in Norway, Sweden and the United States: OMEP policy forum. *International Journal of Early Childhood*, 52(2), 129–144.
- Sandi, C. (2013). Childhood trauma leaves its mark on the brain. Ecole Polytechnique Fédérale

- de Lausanne. <https://healthland.time.com/2013/01/16/childhood>
- Sandseter, E. B. H., Cordovil, R., Hagen, T. L., & Lopes, F. (2020). Barriers for outdoor play in early childhood education and care (ECEC) institutions: Perception of risk in children's play among European parents and ECEC practitioners. *Child Care in Practice*, 26(2), 111-129.
- Santn, M. F., & Torruella, M. F. (2017). Reggio Emilia: An essential tool to develop critical thinking in early childhood. *Journal of New Approaches in Educational Research (NAER Journal)*, 6(1), 50-56.
- Sapsağlam, Ö. & Birak, E. (2023). Examining the effect of increased screen usage time on preschoolers' cognitive process skills during Covid 19 period. *Malaysian Online Journal of Educational Technology*, 11(2), 108-126.
- Schleicher, A. (2020). The Impact of COVID-19 on Education: Insights from "Education at a Glance 2020". *OECD Publishing*.
- Schriever, V., Simon, S., & Donnison, S. (2020). Guardians of play: Early childhood teachers' perceptions and actions to protect children's play from digital technologies. *International Journal of Early Years Education*, 28(4), 351–365.
<https://doi.org/10.1080/09669760.2020.1850431>
- Sciaraffa, M. A., Zeanah, P. D., Zeanah, C. H. (2018). Understanding and promoting resilience in the context of adverse childhood experiences. *Early Childhood Education Journal*, 46(3), 343–353.
- Sharkins, K., Newton, A., Causey, C., & Ernest, J. M. (2017). Flipping theory: Ways in which children's experiences in the 21st century classroom can provide insight into the theories of Piaget and Vygotsky. *Southeast Asia Early Childhood Journal*, 6, 11-18.
- Singh, S., D. K. Roy, S. Parveen, G. Sharma, & G. Joshi. (2020). Impact of COVID-19 and

- lockdown on mental health of children and adolescents: A narrative review with recommendations. *Psychiatry Research* 293, 113429.
- Sitthirak, C. (2022). Impact of interpersonal relations and positioning on the resolution of conflicts in the EFL classroom. *LEARN Journal: Language Education and Acquisition Research Network*, 15(2), 751-775.
- Sjoerdsma, S. (2016). Importance of play: Play-based instruction within a preschool learning environment. *Master of Education Program Theses*. 103.
https://digitalcollections.dordt.edu/med_theses/103
- Skilbeck, A. (2017). Dewey on seriousness, playfulness and the role of the teacher. *Education Sciences*, 7(1). <https://doi.org/10.3390/educsci7010016>
- Smilde-van den Doel, D. A., Smit, C., & Wolleswinkel-van den Bosch, J. H. (2006). School performance and social-emotional behavior of primary school children before and after a disaster. *Pediatrics*, 118, e1311–e1320. <https://doi.org/10.1542/peds.2005-2781>
- Stephenson, E. (2016). Education for tomorrow or education for the individual: What works for the future? In *Forum on Public Policy Online* (2016)2. Oxford Round Table.
- Sutton-Smith, B. (2016). Play for life: Play theory and play as emotional survival. Strong Museum of Children's Play.
- Syarah, E.S., Mayuni, I., Dhieni, N., (2020). Understanding teacher's perspectives in media literacy education as an empowerment instrument of blended learning in early childhood classroom. *Jurnal Pendidikan Usia Dini*. 14(2): 1693-1702.
- Taggart, J., Fukuda, E., & Lillard, A. S. (2018). Children's preference for real activities: Even stronger in the Montessori Children's House. *Journal of Montessori Research*, 4(2), 1–9.
<https://doi.org/10.17161/jomr.v4i2.7586>

- Tai, H., Mohamed Shah, N., Hashim, N., & Mustafa, N. A. (2021). Play-based learning: A qualitative report on how teachers integrate play in the classroom. *City University EJournal of Academic Research (CUeJAR)*, 3(2), 62–074.
- Tamana, S. K., Ezeugwu, V., Chikuma, J., Lefebvre, D. L., Azad, M. B., Moraes, T. J., et al. (2019) Screen-time is associated with inattention problems in preschoolers: Results from the CHILD birth cohort study. *PLoS ONE*, 14(4), e0213995.
- Technology and interactive media as tools in early childhood programs serving children from birth through age 8* (p. 15). (2012). [Position Paper]. National Association for the Education of Young Children. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/topics/PS_technology_WEB.pdf
- Taylor, M. E., & Boyer, W. (2020). 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>
- Treisman, K. (2016). *Working with relational and developmental trauma in children and adolescents*. Taylor & Francis.
- The National Association for the Education of Young Children. (n.d.). <https://www.naeyc.org/resources/topics/play>. Accessed 14 January 2023
- UN Committee on the Rights of the Child (2013) *United Nations Convention on the Rights of the Child – General comment No. 17 (2013) on Article 31*. <https://www.ohchr.org/EN/HRBodies/CRC/Pages/CRCIndex.aspx> (General Comments)
- UNESCO. (2020). *COVID-19 Educational disruption and response*. <https://en.unesco.org/covid19/educationresponse>
- UNESCO. (2020). *Half of world’s student population not attending school: UNESCO*

launches global coalition to accelerate deployment of remote learning solutions.

<https://en.unesco.org/news/half-worlds-student-population-not-attending-school-unescolaunches-global-coalition-accelerate>

UNESCO International Institute for Capacity-Building in Africa. (2019). *Play & resilience: a toolkit for teachers, caregivers, and other stakeholders.*

<https://unesdoc.unesco.org/search/b5e1e2f1-96d7-4e5b-b1a4-72da501e0bdf>

United Nations Children's Fund. (2018) *Learning through play: Strengthening learning through play in early childhood education programmes.* UNICEF.

Ünveren, D., & Karakus, G. (2020). An alternative approach in constructivist mentoring for textual analysis in Turkish courses. *International Education Studies, 13*(2), 71-79.

Van der Werf, W. M., Slot, P. L., Kenis, P., & Leseman, P. P. M. (2020). Hybrid organizations in the privatized and harmonized Dutch ECEC system: Relations with quality of education and care. *Early Childhood Research Quarterly, 53*, 136-150.

Van den Heuvel, M., Ma, J., Borkhoff, C. M., Koroshegyi, C., Dai, D. W., Parkin, P. C., ... & TARGet Kids! Collaboration. (2019). Mobile media device use is associated with expressive language delay in 18-month-old children. *Journal of Developmental & Behavioral Pediatrics, 40*(2), 99-104.

Van Lancker, W., & Parolin, Z. (2020). COVID-19, school closures, and child poverty: a social crisis in the making. *The Lancet Public Health, 5*(5), e243-e244.

Vandervert, L. (2017). Vygotsky meets neuroscience. *American Journal of Play, 9*(2), 202–227.

Vasudevan, L. (2015). "A picture can do things words can't": Transforming representations in literacy research. In *Handbook of Research on Teaching Literacy Through the Communicative and Visual Arts, Volume II* (pp. 215-222). Routledge.

- Vecchi, V. (2010). *Art and creativity in Reggio Emilia: Exploring the role and potential of ateliers in early childhood education*. Routledge.
- Veresov, N., & Barrs, M. (2016). The history of the reception of Vygotsky's paper on play in Russia and the West. *International Research in Early Childhood Education*, 7(2), 26–37.
- Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfeld, C., Mytton, O., Bonell, C., & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. *The Lancet Child & Adolescent Health*. [https://doi.org/10.1016/s2352-4642\(20\)30095-x](https://doi.org/10.1016/s2352-4642(20)30095-x)
- Vygotsky, L. (1976). Play and its role in the mental development of the child. *Play: Its role in the development and evolution*, 863-895.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Vygotsky, L. (1986). *Thought and language* (A. Kozulin, Trans. & Ed.). MIT Press.
- Vygotsky, L.S. (2004). Imagination and creativity in childhood. *Journal of Russian and East European Psychology*, 42(1), 7–97.
- Waite, S., Huggins, V., & Wickett, K. (2014). Risky outdoor play: Embracing uncertainty in pursuit of learning. *Exploring outdoor play in the early years*, 71-85.
- Walther, L. (2019). *The impact of play-based learning* (Master's Thesis, Northwestern College). https://nwcommons.nwciowa.edu/education_masters
- Wang, L. (2018). All work, all play: Harnessing play-based learning in Ethiopia and Liberia to create lifelong learners. *Childhood Education*, 94(5), 4-13.
- Wasik, B. A., & Jacobi-Vessels, J. L. (2016). Word play: Scaffolding language development through child-directed play. *Early Childhood Education Journal*, 45, 769 –776.
- White, A., Liburd, L., & Coronado, F. (2021). Addressing racial and ethnic disparities in

- COVID-19 among school-aged children: Are we doing enough? *Preventing Chronic Disease: Public Health Research, Practice, and Policy*, 18(E55), 1–11.
<https://doi.org/10.5888/pcd18.210084>.
- White, R. E. (2012). *The power of play: A research summary on play and learning* (p. 32). Minnesota Children’s Museum.
- World Health Organization. (2019). *Guidelines on physical activity, sedentary behavior and sleep for children under 5 years of age*. <https://www.who.int/news/item/24-04-2019-to-grow-up-healthy-children-need-to-sit-less-and-playmore>
- World Health Organization. (2020). *Coronavirus disease 2019 (COVID-19) situation report – 1*. https://www.who.int/docs/defaultsource/coronaviruse/situation-reports/20200121-sitrep1-2019-ncov.pdf?sfvrsn=20a99c10_4
- World Health Organization (2021). *Schooling during COVID-19: Recommendations from the European Technical Advisory Group for schooling during COVID-19*.
<https://apps.who.int/iris/bitstream/handle/10665/342075/WHO-EURO-2021-2151-41906-59077-eng.pdf>
- Williams, M., & Moser, T. (2019). The art of coding and thematic exploration in qualitative research. *International Management Review*, 15(1), 45-55.
- Wolpow, R., Johnson, M. M., Hertel, R., & Kincaid, S. O. (2016). The heart of learning and teaching: Compassion, resiliency, and academic success.
<https://www.k12.wa.us/sites/default/files/public/compassionateschools/pubdocs/theheartoflearningandteaching.pdf>
- Wright, L. M. (2016). *How does play in dramatic play centers help preschool children develop oral language and literacy skills?* [Dissertation]. Walden University.

- Yazici, D. N., & Yüksel, N. (2022). Investigation of the reflections of the pandemic process on early childhood education by taking the opinions of teachers and parents. *International Journal of Psychology and Educational Studies*, 9, 908-921.
- Yıldırım, B. (2021). Preschool education in Turkey during the Covid-19 pandemic: A phenomenological study. *Early childhood education journal*, 49(5), 947-963.
- Yogman, M., Garner, A., Hutchinson, J., Hirsh-Pasek, K., Golinkoff, R. M., Baum, R., ... & Committee on Psychosocial Aspects of Child and Family Health. (2018). The power of play: A pediatric role in enhancing development in young children. *Pediatrics*, 142(3).
- Young, K. (2012). Change your shoes, change your life: On object play and transformation in a woman's story. *American Journal of Play*, 4(3), 285-309.
- Zhang, J. (2022). The influence of Piaget in the field of learning science. *Higher Education Studies*, 12(3), 162-168.
- Zhou, S., Zhao, C., Huang, X., Li, Z., Ye, R., Shi, H., ... & Scherpbier, R. W. (2019). The effect of a community-based, integrated and nurturing care intervention on early childhood development in rural China. *Public Health*, 167, 125-135.