

EXPLORING TEACHERS' PERSPECTIVES ON INCORPORATING PLAYFUL LEARNING
IN THE 21ST CENTURY KINDERGARTEN

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By

Theresa F. Lock

Dissertation Committee:

Jeffrey A.S. Moniz, Chairperson

Steve M. Shiraki

Robert G. Peters

Sylvia M. Hussey

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Dedication

“Play, when choreographed thoughtfully, is one of the most powerful learning contexts available” (Graue, 2010, p. 33)

This dissertation is dedicated to my five grandchildren, Aaron, Kaila, Alexandra, Kaelyn, and Aria, between two-years-old to eight-years old. Childhood is the time in life when you are exploring and constructing your understanding of this world and one of the major ways you do this is through play. When I observe you playing with one another, other peers, or with caring adults, I am amazed at how you are developing your creativity, problem-solving, language skills, emotional and intellectual regulation, negotiation skills, perseverance and self-identity. I can see how play is serious learning for you. I hope each of you will continue to be engaged in spontaneous self-directed play and structured play-based learning, not only in your childhood, but also as you grow and mature through life. May you retain your natural curiosity, passion for life, joy in learning, and use your God-given purpose to positively impact those around you.

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Abstract

Decades of research have shown how play is a major vehicle for young children's development and learning. However, since the 1990's with greater emphasis on higher academic standards and accountability in the U.S. educational system, kindergarten teachers felt pressured to reduce or eliminate play for more didactic instruction and mandated assessments. In 2010, new higher-level national Common Core State Standards (CCSS) were released and adopted by 42 states, including Hawai'i. The CCSS affirm that play is a welcomed activity to address these standards, yet there has been limited research on how kindergarten teachers are incorporating play in their standards-based classrooms. The purpose of this multiple case study explored how four Hawai'i public school kindergarten teachers utilized playful learning to address CCSS. Data was collected through individual and focus group interviews. Data was analyzed and emerging themes about teachers' perceptions surfaced. Findings show that all teachers embraced a philosophy that valued playful learning in kindergarten, however, they varied in the instructional approaches they used, supports they had, and challenges they faced to incorporate play into their classroom practice. These variations seemed to be dependent on the interplay between validation they received from their school principals and colleagues; and, teachers' own sense about their power to make intentional pedagogical decisions. One implication is how teacher educators can improve future professionals' decision-making skills in using play in the curriculum. A question raised for future research is how a teachers' study group might enhance kindergarten teachers' competence in utilizing a play-based curriculum model to advance children's learning through rigorous engaging play.

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Chapter 1: Introduction

To promote excellence and equity in the field of early childhood education (ECE), the National Association for the Education of Young Children (NAEYC) provides a framework for effective practices called developmentally appropriate practice (DAP) for programs that serve children, birth through age 8 (Copple & Bredekamp, 2009). DAP is a set of high quality standards for early childhood professionals that consider children's age and developmental functioning, their uniqueness as individuals, and the social and cultural context in which they live. DAP covers five interrelated key areas of practice: 1) creating a caring community of learners; 2) teaching to enhance development and learning; 3) planning curriculum to achieve important goals; 4) assessing children's learning and development; and, 5) establishing reciprocal relationships with families. DAP is updated periodically to accommodate the most current research in child development sciences and effective teaching practices.

One of the well-supported principles of DAP is how play is a vital mechanism for supporting children's understanding of their world around them, joy in learning, and foundational capabilities that promote school success (Copple & Bredekamp, 2009). Starting in infancy, there are different kinds of play offering a variety of benefits for young children. However, it is through high-level play (Bodrova & Leong, 2008; Singer, Golinkoff & Hirsh-Pasek, 2006, Trawick-Smith, 2009), characterized by imagination and engaging peer interactions, that contributes significantly to children's cognitive processes, self-regulation, language, and social and physical competence. In a developmentally appropriate kindergarten (Jacobs & Crowley, 2010), the teacher engages children in playful learning experiences that stretches the boundaries of their ingenuity, communication, emotions and intellect, and provides a context for children to reach optimal learning goals.

Decades of research have shown that play has a significant role in how young children learn and develop (Erikson, 1980; Fromberg, 2002; Frost, Wortham, & Reifel, 2005; Piaget, 1966; Smilansky &

Shefatya, 1990; Vygotsky, 1966, 1986). In addition, research on brain development confirms that play is a mechanism for brain growth, flexibility, and pleasure in learning in early childhood and subsequent years (Perry, Hogan, & Marlin, 2000; Rushton, Juola-Rushton, & Larkin, 2010). Play contributes to children's creativity, problem solving capabilities and motivation to learn (Bodrova & Leong, 2003; Singer et al., 2006). Play is a way of deepening engagement of young children in curricula content areas, such as mathematics (Ginsburg, 2006; Kamii, 2015); social science (Fromberg, 2002); integrated science, technology, engineering and math (STEM) (Katz, 2010); in project-based learning (Helm, 2015); and, place-based learning (Brillante & Mankiw, 2015). In early literacy research, play is found to support children's emerging language and literacy skills, such as, story comprehension and narrative story structures (Roskos and Christie, 2011). Furthermore, research highlights play as a multimodal literacy that expands children's proficiency as interpreters and producers of texts, images, artifacts and media (Wohlwend, 2008).

Beginning in the 1990s when the United States (U.S.) established their own academic standards and expectations for what students should know and be able to do at each grade, unfortunately, there has been a dramatic reduction in the time allotted for play in kindergarten across the American public- school system (Miller & Almon, 2009). The standards and accountability reform movement culminated with the enactment of the No Child Left Behind Act of 2002 (NCLB), which scaled up the federal government's role in holding local schools accountable for improved student outcomes (Calfree & Wilson, 2016). According to Goldstein (2007a, 2007b, 2016), the rigid policies, high-stakes testing, and penalties connected with NCLB applied heavy pressure on teachers to prepare children for standardized tests in third grade and pushed more academic expectations downward into the earlier grades, including kindergarten (Bowdon, 2015; Minicozzi, 2016). Key researchers (Bassok, Latham & Rorem, 2016) found that from 1998 to 2006 many school districts mandated blocks of time for language arts and mathematics content in kindergarten, which

compelled teachers to use more didactic instructional materials, such as, textbooks and worksheets, through whole group instruction, and decrease the time for play, art, music, science and child-related activities.

Upon the heels of NCLB, a coalition of governors, higher education faculty, and kindergarten through twelfth grade (K-12) educators, were convened by the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO) to develop a national set of common expectations for students from kindergarten through 12th grade (NGA & CCSSO, 2010) called Common Core State Standards (CCSS). In June 2010, the CCSS for English Language Arts (CCSS-ELA) and CCSS for Mathematics (CCSS-M) were announced as a significant education reform initiative with the goal of college and career readiness for high school graduates. As of August 2015, the CCSS have been adopted by forty-two states, the U. S. Department of Defense Education Activity (DoDEA); the District of Columbia, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands, with varied implementation timelines.

In 2010, after years of outcries from educators and families, President Barack Obama's administration ended NCLB and reauthorizes the Elementary and Secondary Education Act of 1965 (ESEA) as the Every Student Succeed Act (ESSA). ESSA, with the focus of giving the states an opportunity to create their own school reform plans towards college and career readiness, was signed into law on December 15, 2015.

According to educational researchers (Calfee & Wilson, 2016; Goldstein, 2016), the CCSS were an improvement from previous national standards because they were easier for teachers to use, selective at each grade-level so students could learn the most important academic content, and aimed to advance children's higher order thinking and real-world problem-solving. The CCSS were explicit in requiring age-appropriate language and literacy experiences to be integrated into the entire classroom curriculum; and thus, expected teachers to develop lessons that were richer and more challenging than lessons written under NCLB.

The authors of CCSS (NGA & CCSSO, 2010) were clear that these standards were not to be used as a curriculum and not a prescribed set of teaching practices. Rather, the primary impetus for substantial education reform through CCSS rested with teachers' specialized professional expertise and their decisions about curriculum, instruction and assessment (Goldstein, 2016). Teachers who knew their students, understood the context and the communities in which they taught, and were familiar with the resources that were accessible to them and their schools; thus, made learning culturally responsive and relevant. According to Calfee & Wilson (2016), the CCSS required teachers to increase their level of professional responsibility and authority which constituted a major departure from the prescriptive trends imposed previously by NCLB. In fact, in the introduction to the CCSS-ELA, it stated, "The standards define what all students are expected to know and be able to do, and not how teachers should teach. For instance, the use of play with young children is not specified by the standards, but it is welcome as a valuable activity in its own right and as a way to help students meet the expectations in this document" (NGA & CCSSO, 2010, p. 6). Furthermore, Calfee and Wilson (2016) argued that the CCSS established a vital paradigm shift and created a new opportunity for "recognizing the classroom teacher as the most critical factor for promoting quality school" (p. 104). Hence, teachers' intentional pedagogical decision-making including the utilization of play as an effective instructional strategy, were both desired and expected when aligning children's learning with standards (Epstein, 2007; Thomas, Warren, & de Vries, 2011).

However, during this early implementation phase of CCSS, there have been limited qualitative research on how public school kindergarten teachers, committed to DAP, were balancing the CCSS at the classroom and school levels, while shifting from the heavy pressures of NCLB to more teacher-empowered yet rigorous CCSS. In particular, there was limited research on the challenges and successes kindergarten teachers were experiencing as they incorporated play in their classroom practice to support how all children learn and were meeting the expectations of CCSS and other new academic standards.

Therefore, the main goal of this research study is to explore why four public school kindergarten teachers in Hawai‘i value play and how they are incorporating a developmentally appropriate play-based approach to address the CCSS. Other sub-goals of this study are, to examine more closely the intentional instructional decisions these teachers’ employ while incorporating a play-based approach to help children reach CCSS-ELA and CCSS-M; to investigate the factors that enable teachers to use play to address standards; and, to discover how teachers navigate the challenges of incorporating play in a climate of standards and accountability.

Research Questions

The following are the research questions that will guide this study:

1. What are kindergarten teachers’ perceptions of the role of play in kindergarten?
2. Why are kindergarten teachers implementing a developmentally appropriate play-based approach to address content standards?
3. How are kindergarten teachers implementing a developmentally appropriate play-based approach to address content standards?

The Importance and Projected Benefits of this Study

This study has the potential to support the Hawai‘i Department of Education (HI DOE) strategic plan priorities related to the implementation of CCSS, other academic standards, and educator effectiveness. Additionally, the study will explore and acknowledge teachers’ perceptions about how they are utilizing playful learning to address the CCSS. It will affirm and encourage kindergarten teachers to continue to improve how they incorporate play as a teaching strategy in their classroom practice. Finally, this study will reveal how kindergarten children can be engaged in meaningful, rigorous, and joyful learning, and how playful learning can impact each teacher’s sense of self-efficacy, autonomy, and morale.

It is hoped that the results of this study may: 1) add to the scholarly literature on why and how kindergarten teachers are incorporating a play-based curriculum to address academic standards; and, 2) guide the work of early childhood educators, school principals, district and state administrators in school systems, educational policy makers; and teacher educators, who are striving to improve kindergarten and prekindergarten through third grade (PK-3) education.

Research Design

This research study will be configured as a qualitative multiple case study (Merriam, 2009) because it will investigate a real, contemporary phenomenon about the intersection between play, standards and kindergarten teachers. This case study inquiry will use a purposeful sampling of four public school kindergarten teachers in Hawai‘i who are identified as teachers using a developmentally appropriate play-based approach to address CCSS. Each teacher is a case or bounded system and together the four cases create a multiple bounded system. A case study design will use different data collection strategies, including a two-stage in-depth interview with each participant, concluding with a focus group with all participants. In addition, there may be document analysis of teachers’ lesson plans; and notes from the researcher’s field journal.

Definition of Terms

In this section are the definitions of the terms that will be utilized in this research study. These terms include: kindergarten, developmentally appropriate practice, play-based curriculum, playful learning, and academic content standards.

Kindergarten.

Kindergarten is a subset of the broader field of early childhood education. It is typically considered the first introduction to formal schooling for most five year olds in the public K-12 grade school system.

Developmentally appropriate practice.

Developmentally appropriate practice (DAP) is a set of standards of best practice (Copple & Bredekamp, 2009), as defined by the National Association for the Education of Young Children (NAEYC) and informed by research and theory. DAP engages children's interests and adapts for their age, experience, ability, their social-cultural contexts, and promotes their development and learning. Play is one of the 12 child development principles that undergird DAP.

Early childhood education.

Early childhood education or ECE is a branch of educational theory and defines the program, field, or system serving young children, birth through age eight. The programs in this field or system include home-based and center-based infant-toddler services, family child care homes, preschools, early elementary grades or primary education. Professionals work in ECE programs and the system have roles, such as, infant and toddler care givers, family child care providers, preschool through early elementary teachers, administrators, counselors, higher education faculty, early childhood policy specialists.

Play-based curriculum.

A play-based curriculum is a playful, whole-child approach to learning, whereby play is central to learning and teaching and covers the classroom curriculum, instruction and assessment. The common elements in a play-based approach include arrangement of space in learning centers; a variety of indoor play equipment and materials; activities that support divergent thinking and creative expression; attention to safety; and a daily schedule that allows for children's active engagement with peers. In a play-based curriculum, the teachers intentionally facilitate children's play toward learning outcomes and use observational-based formative assessments to guide their instructional and curricular decisions.

Playful learning.

For the purposes of this study, playful learning means a balance of child-initiated play and teacher-guided play. Child-initiated play is self-directed and spontaneous play with the active presence of teachers. Teacher-guided play is experiential learning that is planned and guided by the teacher focused on specific goals. Experiential learning can be in the form of structured hands-on inquiry learning over time, such as projects based on children's questions. Playful learning is predominant in a play-based curriculum or play-based approach. In this study, these two terms are used interchangeably.

Academic content standards.

For the purpose of this study, the primary focus is on the Common Core State Standards (CCSS) which Hawai'i has adopted as part of the academic standards for grades K-12. CCSS identify demonstrable behaviors of what students should know and be able to do within the CCSS for English Language Arts and Literacy in History/Social Science, Science and Technical Subjects (CCSS-ELA) and for Mathematics (CCSS-M). Secondly, other academic content standards that are identified in this document are the Next Generation Science Standards (NGSS) for K-12 grades which aligns with CCSS.

Organization of the Study

Beyond the introduction, this study is arranged into four chapters, appendices, and references. Chapter Two presents the literature review underpinning the research problem. Chapter Three describes the methodology of this study, including why a qualitative multiple case study was used. Chapter Four delves into the results through within-case analysis of each of the four teachers and a cross-case analysis of all four teachers. Chapter Five covers the findings, implications and presents a conclusion to the study.

Chapter 2: Literature Review

In this chapter, I present a substantive review of relevant literature surrounding my qualitative case study of how and why public school kindergarten teachers are incorporating a play-based curriculum to address standards. This literature review is organized into seven primary sections. They are: 1) teaching kindergarten; 2) DAP and play; 3) play-based curriculum models; 4) standards and accountability in public schools; 5) teachers' pedagogical decision-making role; 6) organizational support for teachers; and, 7) external supports for schools.

Teaching Kindergarten

Purposes of kindergarten.

According to Jacobs & Crowley (2010), "Kindergarten is a landmark year in the lives of children and their families. It is the first year of formal school for many children" (p. 1). Kindergarten was often acknowledged as the transition from home to school and for many children who have attended community-based preschools, kindergarten was "the bridge between preschool and the 'big' school" (Heroman & Copple, 2014, p. 59). Research has confirmed that kindergarten was foundational to the development of children's social-emotional and cognitive skills (Graue, 2006, 2010); a setting that "contributes profoundly to children's motivation and competencies" (Berk, 2006, p. 21). "At its best, kindergarten experiences can nurture positive approaches to learning and prepare children for the more rigorous academic expectations of the primary grades" (Copple & Bredekamp, 2009, p. 188). Thus, what happens in the kindergarten year was vital to children's success in school and in life.

The kindergarten teacher and play.

Kindergarten teachers are essential to sustaining children's natural curiosity and engagement in learning. They make kindergarten a nurturing, stimulating, and joyful experience. According to Graue (2006), "It is absolutely reasonable to expect that kindergarten is about playful learning and learningful play,

and about academics, socialization and social academics” (p. 7). Consequently, kindergarten teachers must know about child development, the curriculum content, and their students. Furthermore, kindergarten teachers need to be skilled at making intentional pedagogical decisions (Bredekamp, 2011, Epstein, 2007), related to what a teacher said and did that provoked children’s thinking and contributed to their learning and development. Intentional teachers who were attuned to children’s ways of learning (Ranz-Smith, 2007), understood that they have to “plan for interactions that are most beneficial and relevant to the children’s age and their level of play” (Bodrova & Leong, 2015, p. 181). Kindergarten teachers needed to be thoughtful in designing learning environments (Kostelnik, Soderman, Whiren, & Rupiper, 2014), where “play is a rich laboratory that can be used to teach multiple concepts simultaneously in a way that differentiates instruction” (Graue, 2010, p. 33).

According to Copple, Bredekamp, Koralek, & Charner (2014), the active support of teachers in children’s complex dramatic play and play with made-up rules were significant to how kindergarteners, including impulsive children, developed and practiced self-regulation skills that promoted cognitive and emotional regulation. They stated that “children often require adult modeling and scaffolding to help them learn to engage in the sustained, complex play that is most beneficial to their development” (pp. 35-36). When teachers actively scaffold play, they “enrich interactions by providing quality feedback, extending conversations, and bringing in relevant resources” (Graue, 2010, p. 33). Furthermore, teachers need to know when enough guidance is provided to children’s play and when they need to step back and allow children to add more complexity on their own. For example, experienced teachers knew what roles (e.g. co-player, stage manager, play leader) they have to assume to enable more optimal pretend play among children (Enz & Christie, 1997). These kindergarten teachers understand that play is a powerful and necessary vehicle for children’s optimal learning experience (Graue, 2006, 2010; Jacob & Crowley, 2010; Miller & Almon, 2009).

Historical overview of kindergarten in America.

The kindergarten movement in the U.S. started with educational ideas from Europe in the mid- 19th century, which became intertwined with the progressive education, child study, and nursery school (also known as preschool) movements in the late 19th to mid- 20th century. The first kindergarten (Jacobs & Crowley, 2010; Frost et al., 2005) was established in Germany in 1837 as “the children’s garden” by Frederick Froebel, whose ideas were influenced by a Swiss educator named Johann Pestalozzi who lived in the late 18th century. Froebel believed that teachers must study the development of children, then observe and act as children’s gardeners who nurture children’s natural unfolding or “blossoming from within” (Bredekamp 2011, p. 47). To that, Froebel added a specific curriculum and educational materials, which consisted of hands-on objects and materials called “gifts and occupations,” and accompanied by songs, stories and games (Frost et al., 2005, p.13). Like Pestalozzi, he believed education started with children’s interests and that children learned best through play (Jacobs & Crowley, 2010). However, Froebel argued that play may happen anywhere, but educational play with well-trained teachers constitutes planned experiences to improve children’s whole development. This type of purposeful play supports each child’s own timetable (Bredekamp, 2011).

The first kindergarten opened in the U.S. in 1856, when Margarethe Schurz, a recent immigrant from Germany who studied with Froebel, founded a German-speaking school in Wisconsin. Then in 1873, the first public school kindergarten was founded by Susan Blow in St. Louis., Missouri. Unfortunately, Blow emphasized a rigid application of Froebelian methods and materials, which later drew criticism from child advocates and kindergarten teachers influenced by the progressive education and child study movements in America (Bredekamp, 2011).

The progressive education movement was a major effort to reform American schooling that impacted all levels of education in the 20th century, including ECE (Bredekamp, 2011; Frost et al., 2005). At

that time the U.S. public school consisted of rote memorization in reading, writing, and arithmetic, strict conformity and harsh discipline. Progressive education emphasized that school should be more democratic and responsive to the needs of children. The most influential spokesperson of progressive education was John Dewey, a leading professor of philosophy and educational reformer. He argued for advances in public education by turning values of democracy into action and by recognizing that education should be based on students' experiences, rather than focused on the teacher and subject disciplines. Dewey stated that "The child's own instinct and powers furnish the material and give the starting point for all education" (Dewey, 1897, as cited in Dworkin, 1959, p. 20). According to McEwan (2015), this view of education as child-centered was supported by Dewey's phrases "the life of the child" and "the child as an active, engaged participant in school activities," (p. 4), which stemmed from how quality family life includes the child as an active participant. Dewey argued that school could be built on this notion in a more systematic way with the guidance of well-trained teachers, who then planned curriculum as inquiry-based themes or projects that came from children's interests and real-life situations. He elaborated that children's projects should be taught using active, hands-on, playful learning experiences and engage them in constructing meaning rather than passively absorbing information. Dewey's views on educational play were, "play is a form of activity that for young children is their form of thought, and play is freely chosen activity" (Frost et al., 2005, p. 19). Moreover, Dewey emphasized play for young children as their work, not as opposing concepts of play and work but as interrelated attitudes (Ranz-Smith, 2007) that capitalized on children's intrinsic motivation (Goldstein, 2008; Peters, 2015). These ideals had a profound impact on the founding leaders of the American kindergarten and nursery school movements (Bredenkamp, 2011).

In the early 20th century, Patty Hill Smith, was influenced by the progressive education movement and the growing field of scientific child study. She integrated the Froebelian kindergarten with the concept of the whole child, and emphasized how play enhanced children's motor, language, social, emotional, and

cognitive development (Bredekamp, 2011; Frost et al., 2005). Eventually, Smith was a key leader in the nursery school movement, wrote early versions of the principles of DAP, and became the founder of the first American nursery school teachers' association, which eventually was renamed as the National Association for the Education of Young Children (NAEYC).

According to Graue (2006), the early kindergarten was either attached to private and public elementary schools or part of churches and for-profit preschools or day care centers. Then by the mid-20th century most kindergarten programs were in public schools. With the early kindergarten aligning with elementary school or preschool and day care centers, this created a mixture of goals, philosophies, expectations, and structures, which made the kindergarten curriculum a “sometimes troubled, hybrid of early childhood and elementary education” (p.5). At the beginning, the purpose of public school kindergarten was the socialization of immigrant children. However, over time, as more women entered the workforce, and greater numbers of children were enrolled in preschool, child care, or Head Start, the kindergarten curriculum shifted to include more academics, with attention on discreet skills to get children ready for first grade, and less time for play, naps and art. Head Start is a federally funded program of the U.S. Department of Health and Human Services that provides early education, health, nutrition, and family engagement services to low-income children and their families.

Section summary.

Despite the varied purposes of today's kindergarten, most people would agree that kindergarten is a landmark year to establish key foundational skills in children that would impact their success in school. With an understanding of kindergarteners' developmental needs, skilled teachers intentionally use play to deepen children's thinking, social interactions and engagement in learning. Initially, the early American kindergarten movement was influenced by Frobelian ideas, progressive education, child study, and the expansion of nursery schools. During these years, kindergarten was primarily sponsored in the private

sector, as a transition from home to school and a nurturing and stimulating place where children discovered their world, made friendships with peers and enjoyed learning through play. As kindergarten expanded in public schools and as more children attended preschool prior to kindergarten, the kindergarten curriculum changed from a focus on social skills through socio-dramatic and construction play, to less time for play and more focus on preparation for first grade.

Developmentally Appropriate Practice and Play

In 1987, the NAEYC issued the first position statement on DAP for early childhood programs to provide more specific guidelines about quality practices for the new NAEYC accreditation program standards. DAP was also a response to the “growing trend to push down curriculum and teaching methods more appropriate for older children to kindergarten and preschool programs” (Copple & Bredekamp, 2009, p. viii). Over the last few decades, with breakthroughs in neuroscience about the child’s rapidly developing brain and more diversity among children being cared for in group settings, DAP was revised to broaden the focus from children’s age and developmental functioning and their uniqueness as individuals, to include a stronger emphasis on the social and cultural contexts in which children live. As a set of standards of best practice for early childhood professionals, DAP provided guidance about how to intentionally engage children’s interests and adapt for their age, experience, and ability, while helping them meet “challenging and achievable goals” (Copple & Bredekamp, 2009, p. 9).

The kindergarten child’s development and play.

Child development theories and research have long confirmed that across cultures, there was a major shift in children’s cognition just about the time children started kindergarten, when they were between five to seven years old (Charlesworth, 2014; Golbeck, 2006; Piaget, 1966; Tomlinson, 2014). This was first identified by Jean Piaget in 1952 who revealed that there were unique thought patterns that characterized this age range. This shift in cognition took place as children moved developmentally from the preoperational

period, which is the age of preschoolers, to the concrete operational period, which was the age of school-age children. According to Tomlinson (2014), “throughout and after the shift children show increased levels of personal responsibility, self-direction, and logical thinking” (p. 22). During this shift children were developing important basic cognitive concepts, such as classification, conservation, seriation, spatial concepts, and causality. For this age group, adults needed to provide a rich environment for exploratory play where children could construct their own knowledge with concrete materials and reflect on their actions. Symbolic play was one of the major vehicles that supported kindergarteners’ development from “purely concrete activity to connecting the concrete with the abstract” (Charlesworth, 2014, p. 434). For example, in kindergarteners’ block play this shift was observed as children mentally came up with multiple ways to combine a variety of blocks to create a specific structure. Kindergarteners were more likely to classify collections of things into conceptual categories and begin to think about their own thinking or metacognition (Golbeck, 2006).

According to Charlesworth (2014), there were four influential child development theorists who regarded play as a major contributor to young children’s development and learning. They were Sigmund Freud, Erik Erikson, Jean Piaget, and Lev Vygotsky. Freud and Erikson were psychoanalysts whose theories on play supported young children’s social, emotional and personality development. Freud found that sociodramatic play helped children express their emotions and practice their gender-roles. While Erikson discovered how play helped children discover their identity and work out conflicts in imaginary roles (Erikson, 1980). For Piaget, symbolic play and games with rules were the means for how children constructed knowledge from within themselves, while adults acted as guides for children when interacting with people and objects in the learning environments. Like Piaget, Vygotsky was also a constructivist; however, for him, young children, ages three to six year olds, needed high-level make-believe play with the guidance of older children or adults to construct knowledge (Vygotsky, 1967, 1986). He discovered that

children's representational play created a zone of proximal development (ZPD), "a time when children can play independently with just a little more indirect guidance from an adult: a question, a hint, or a subtle prompt" (Trawick-Smith, 2009, p. 9). Vygotsky also found that the rules that governed representational play helped children learn to regulate their thinking and emotions.

Research on play and young children's holistic development.

Decades of research have shown that play is a major vehicle for how young children learn and develop (Charlesworth, 2014; Christie, 1983; Frost et al, 2005; Fromberg, 2002). Expanded research on brain science confirms that play contributed to brain growth and flexibility in the early childhood and subsequent years (Rushton et al., 2010). In addition, neuroscientists, argued that there was a close link between the brain, learning, and joy.

A wonderful cycle of learning is driven by the pleasure of play. A child is curious; she explores and discovers. The discovery brings pleasure; the pleasure leads to repetition and practice. Practice brings mastery; mastery brings the pleasure to repetition and practice. Practice brings mastery; mastery brings the pleasure and confidence to once again act on curiosity. All learning—emotional, social, motor, and cognitive—is accelerated and facilitated by repetition fueled by the pleasure of play (Perry et al., 2000, p. 9).

Studies found that young children earned better grades and experienced fewer referrals for special services in the upper elementary grades, than children whose early education was characterized by few play-centered activities and routines (Marcon, 2002; Schweinhardt, & Weikart, 1996). Research about play-based early childhood programs have remained consistent, "The frequency and complexity of play in the early years predict later school achievement" (Trawick-Smith, 2009, p. 10).

Evidence has demonstrated that higher-level play contributed to children's physical competence, social and emotional skills, self-regulation, creativity, language, thinking, and problem solving capabilities;

and, overall self-confidence (Bodrova & Leong, 2008; Fromberg, 2002; Singer et al., 2006; Smilansky & Shefatya, 1990). According to Weisberg, Hirsh-Pasek, Golinkoff (2013), higher-level play is directed by the child but the adult guides the child's play towards learning objectives or "while the adults might initiate the play sequence, children direct their own learning within the play context" (p. 105), thus, this type of guided play was a collaboration between the child and adult. Guided play differs from free play, where children select their activities and focus on play without the "active guidance from a teacher" (p. 105).

A study showed that there was a relationship between pretend play, counterfactual reasoning, and causal learning in young children, which supported how they dealt with variations in their physical and social environments (Buchsbaum, Bridges, Weisberg, Gopnik, 2012). Another study revealed that in play, kindergartners collectively and individually use their imagination to build concept formation and improve cognitive outcomes (Fleer, 2011). Play is a way of deepening engagement of young children in core content areas, such as language and literacy development (Roskos and Christie, 2011), mathematics (Ginsburg, 2006; Kamii, 2015), science (Wolfe, Cummins, Myers, & Cedillos, 2015), social sciences (Fromberg, 2002), and STEM (Katz, 2010). Research has shown that children use play as a multimodal literacy or core literacy when they are engaged in creating their own multimedia productions and critically interpreting messages they receive in popular entertainment. Through this type of play, children's literate identities as readers, writers and designers were better developed (Wolhwend (2008, 2011, 2013).

Section summary.

To outline educational best practices in early childhood programs and to address a growing pressure to pushdown developmentally inappropriate curriculum onto preschools and kindergartens, NAEYC published the first version of DAP in 1986. The latest version of DAP that was released in 2009 included the latest research on teaching practices that consider children's age, individual variation, and sociocultural contexts. One of the principles of child development in DAP was how play supported children's capabilities

that undergirded learning. Research on the benefits of implementing developmentally appropriate play-based curriculum found that play had immediate and long-term benefits for children. Play enhanced kindergarten children's learning in all subjects and was viewed as a core literacy that strengthened children's skills as they played with digital tools to produce multimedia.

Kindergarten Play-Based Curriculum Models

The literature on play-based curriculum models that seemed to connect to the research problem and questions in this study were: (a) play-based curriculum approaches for ECE programs; (b) a kindergarten continuum; (c) a balance of child-initiated play and teacher-guided hands-on learning; and, (d) realities of play-based learning.

Play-based curriculum approaches for early childhood education program.

According to Trawick-Smith (2005), most play-based classrooms shared common elements but differed in their approaches with curriculum. These approaches were: 1) non-play; 2) hands-off play; 3) narrowly focused play; and 4) broad-based developmental. Besides examining true play approaches, Trawick-Smith intentionally includes non-play teaching because it is more prevalent in American schools.

Approach 1: Non-play curriculum approach.

The non-play curriculum models offered no play or only infrequently, such as play as a reward for the academic work that children did. The two assumptions behind this approach are: 1) play and learning are distinct and mutually exclusive; and 2) learning is more important than play and should be the goal of education.

The non-play curriculum models vary in how play is reduced in classrooms. The two extreme models were the behaviorist model and the didactic elementary school programs. The behaviorist model was founded on the work of B.F. Skinner in the 1960s and 1970s. This model included direct adult instruction, programmed workbooks, concrete rewards for appropriate behavior and learning, and

deemphasized or eliminated play. One behaviorist model (Bushnell, Wrobel, & Michaelis, 1968) that served students, preschool through third grade, rewarded tokens for appropriate behavior. Children who earned tokens could then redeem them for play activities during short periods of free time. One direct instructional model (Trawick-Smith, 2005) was in an urban school district in Hartford, Connecticut. According to Chedekel (1999, as cited in Trawick-Smith, 2005), because of declining test scores, the superintendent mandated a direct instructional model for preschool to high school. Most early childhood teachers were forced to abandon or reduce play.

Researchers (Bushnell et al., 1968; Miller & Bizzell, 1983; Schweinhart & Weikart, 1996) discovered that in the non-play approach there were academic gains but they were short-lived, not going beyond the third or fourth grades. In addition, investigators (Hart, Burtis, Durland, Charlesworth, DeWolf, & Fleege, 1998), discovered that the non-play approach bolstered stress levels and did not effectively promote social skills (Schweinhart & Weikart, 1997), especially among boys from lower socioeconomic families in urban neighborhoods.

In addition to these two extremes of non-play models, even play-friendly schools followed practices that threatened play opportunities for some children (Trawick-Smith, 2005). They were not allowed to use play centers until after abstract learning tasks were completed or go to recess until after they finished their assignments. Sometimes, when children were allowed to play, they were required to play quietly or to play in a given learning center with no more than two or three peers. Sometimes children were given inadequate space or time to engage in meaningful play.

Approach 2: “Hands-off” play.

The “hands-off” play approach to curriculum in ECE was when the teacher provided rich materials and ample space that encouraged children to play independently and the teacher did not get involved with children’s play, unless there were safety concerns.

This curriculum approach adhered to Sigmund Freud's psychoanalytic theory of play (Charlesworth, 2014), where fantasy play, which was free from adult interference, helped children master both pleasant and unpleasant feelings in a safe way. The theories of Freud influenced Erik Erikson (Erikson, 1980), who emphasized that sociodramatic play was a vehicle through which children expressed their emotions and mastered difficult situations in their lives. With this curriculum approach, children spent the majority of their time expressing themselves in open-ended ways with toys and art media, engaged in make-believe scenarios, constructed with blocks, and sculpted and painted with free expression. The role of the teacher was to respond with warmth and interest when children needed attention or reassurance, and to help children talk out conflicts or anxieties in play. Teachers were keen observers and recorders of behavior, and carefully documented the social and emotional development of students.

These traditional, psychoanalytic, free-play nursery school classrooms were included in the High/Scope 20-year longitudinal comparison study of program models (Schweinhart & Weikart, 1996). Children who attended these programs did not differ significantly in intellectual or achievement measures from those who attended the direct instructional preschool or the adult play intervention (High/Scope). However, children in free play preschool group did do better than the direct instructional preschool in social development, including less frequency of violent behavior in adolescence, but slightly less well than those attending High/Scope preschools.

Research (Howes, Ritchie, & Bowman, 2002) has given pause to hands-off approaches. One investigation found that the frequency of adult engagement in children's play was related to attachment to caregivers and to the intellectual quality of children's activities (Howes & Smith, 1995). Another study revealed that the nature and amount of adult-child interaction was related to the overall quality of the child care program (Howes, Phillips & Whitebrook, 1992).

Approach 3: Narrowly focused play interventions.

In the narrowly focused play intervention, the teacher used a full complement of play activities in learning centers with an emphasis on one play form.

Smilansky's sociodramatic play intervention (Smilansky & Shefatya, 1990) was based on Piaget's theory of assimilation and involved the reenactment of prior experiences. The goal of the teacher was to preserve or enhance the ongoing sociodramatic play theme, with only brief intrusions of adult-guided make-believe, if needed. Children assumed pretend roles (e.g. other persons, animals or even objects) and played out imaginative situations that held personal meaning. This type of play was enhanced by rich reinforcing experiences (e.g. field trip, stories), a special play area equipped with props, teacher observations of children's play, and the identification of children who need special support in play. Adult interventions to address play deficits were only for a short period of time, to either take on a role, ask interesting questions, or offer new props for the play theme.

Isenberg and Jalongo's Creative Drama for Primary Grades (1997) was a program to enhance creative drama, where primary grade children were guided informally by teachers to dramatize stories—their own or others—or reenacted experiences of the classroom. This type of play was easily adapted to kindergarten play contexts, and included several types of creative drama for children, such as, sociodramatic play, pantomime, puppetry, story drama; and, reader's theater. This model was not empirically tested; however, early studies of similar teacher-guided play programs have shown positive and lasting effects on intelligence and other measures of general cognition (Christie, 1983; Saltz & Johnson, 1974). Studies on story reenactment have found that children who dramatize favorite books show greater comprehension; accelerated story recall and ability to retell stories (Roskos & Christie, 2011; Galda, 1982, 2000) and deeper appreciation for literacy (McCaslin, 1990; Tompkins & Hoskisson, 1995).

Roskos and Neuman's Literacy Play Model (1998) was a play intervention approach based on the assumption that in sociodramatic play children regularly engaged in literacy routines—reading and writing actions that they have observed adults perform in real life. Sociodramatic play centers included many literacy props (e.g. pens, markers, pads of paper, stationery, envelopes, books, signs) and props specific to special play themes (e.g. cash register for a grocery story). Mixed-ability peer groups were an important feature of this model. This literacy play approach also emphasized the importance of adults modeling the functional uses of print (Enz & Christie, 1997; Roskos & Christie, 2011). Research found that children were eager to practice functional use of print; and children with more print experience supported the reading and writing of less competent peers (Neuman & Roskos, 1991; Stone & Christie, 1996). This type of play has been shown to increase frequency of literacy activity and foster print awareness. However, there have been questions if literacy-enhanced dramatic play center was a play center or whether literacy play was still real play (Trawick-Smith, 1994a; Trawick-Smith & Picard, 2003).

Kamii and DeVries's Group Games (1980) consisted of playing particular group games that stemmed from Piaget's constructivist perspective. These group games focused on rules of the game and the role of adults in facilitating game playing. Facilitating game playing included asking interesting questions, guiding children's problem solving, or dealing with the conflicts that surfaced. They proposed that teachers adjust the intensity of competition when it became problematic or create options for children to play in noncompetitive ways. Kamii and DeVries argued that games were especially challenging, cognitively and socially, because children had to think about adhering to rules, and taking the perspectives of peers as they played. In addition, they uncovered that games were enjoyable and a nonliteral context for making moral decisions based on social contracts and agreements. Kamii and DeClark (1985) have conducted qualitative investigations of game playing in which spatial reasoning, quantification, perspective taking, other social-cognitive processes have been reported.

Approach 4: Broadly focused developmental models.

In broadly focused developmental models, teachers provide materials and intervene in children's play to enhance a wide range of concepts and skills, including mathematics, language, and social competencies. Broadly-focused developmental models were generally based on Dewey's philosophy of progressive education, Piagetian cognitive-developmental theories, and Vygotsky's theories of social constructionism. Examples of broadly focused developmental models were: 1) The Bank Street Approach; 2) High/Scope Model; 3) Vygotskian Play Models; 4) Reggio Emilia Approach; and, 5) Anji Play Model

The Bank Street Approach emphasizes a developmental-interactional model, with the premise that children's whole development unfolds as they actively engage intellectually and emotionally with ideas, things, and people through playful learning (Park & Lit, 2015). This approach focuses on all major academic subjects, through cognitively oriented projects using a variety of open-ended materials. Based on Dewey's philosophy of progressive education and Erikson's theories of identity, this approach defines the role for teachers in children's play as facilitating trust and autonomy, through the use of teaching strategies, such as, observing and assessing levels of thinking; verbally responding, amplifying, rephrasing, and correcting "children's comments, confusions, and actions" (Biber, Shapiro, & Wickens, 1971, p. 4). The goal is to extend learning and stimulate higher levels of thinking. In one study, children interacted more often with peers, expressed more high-order cognitive statements and questions, and showed more autonomy in thought and action, than those who attended traditional kindergarten through 3rd grade (Ross & Zimiles, 1976). In a comparison study, children were less competent with traditional achievement tests but more competent on group problem-solving tasks than typical elementary school students (Minuchin, Biber, Shapiro & Zimiles, 1969).

High/Scope was one of the most prevalent play-based early childhood curricula in U.S. because of a longitudinal study on its positive outcomes (Schweinhart & Weikart, 1996). In this curriculum model, there

are extended periods of free play, a plan-do-review schedule, and very specific guidelines for adults to teach concepts and enhance skills through play activities. A targeted intervention called *key experiences of cognitive development*, is based on Piaget's theory of cognitive development, fostered through children's play (Hohmann & Weikart, 1995). Although research showed long-term benefits of High/Scope, other research (Trawick-Smith, 1994a) opposed the heavy-handed interventions which interrupted children's play.

Vygotskian Play Models highlighted play as an educational activity (Berk & Winsler, 1995; Bodrova & Leong, 1998, 2008; Trawick-Smith, 2005). These models were based on Vygotsky's theory that imaginary play was the leading source of development during the preschool and kindergarten years and created a zone of proximal development (Vygotsky, 1967). In particular, Vygotsky emphasized that using one's imagination served as a key developmental function in mental growth. Vygotskian play models were seen as the primary mechanism for the acquisition of symbolic or abstract thoughts (Bodrova & Leong, 1998); and for the development of reflective thinking and deliberative behaviors (Bodrova & Leong, 2003). With this model, play served to develop both emotional and cognitive regulation (Bodrova & Leong, 2008), and helped children acquire logical-mathematical reasoning (Trawick-Smith, 1994a). In the Bodrova and Leong model, play was defined to include only make-believe and games. Whereas, in the Trawick-Smith model, play was defined more broadly, to encompass almost any activity that was self-chosen, encouraged self-expression, was pleasurable and process-oriented, such as, conducting science experiments, writing stories or solving math problems. Vygotskian play models were reported to enhance problem-solving in classrooms (Bodrova & Leong, 1996, 2008; Rogoff, 1995) and at home (Freund, 1990; Rogoff et al., 1993).

Reggio Emilia Programs were based on the internationally renowned ECE programs in Italy that focus on a child-centered, arts-based inquiry curriculum, where the aesthetics of the environment influenced

the teaching practices (Gandini, 1997). The major goal was intellectual adaptation, where children's expressive experiences were intended to provide new understandings for creative representation of existing concepts. One kind of play that was emphasized was the artistic representation where children spent much time in small and even large groups, engaged with in-depth, ongoing, emergent investigations. Teachers emphasized documentation to capture how children use art media to represent their thinking and learning. One leading scholar, Leila Gandini, from the Italian Reggio Emilia programs, stated that "Time is not set by a clock . . . rather children's own sense of time and their personal rhythm are considered in planning and carrying out activities and projects" (Gandini, 1997, p. 17). The teacher and the atelierist or the art specialist, have been found to promote positive experiences and outcomes for students (Haigh, 1997; Saltz, 1997).

Anji Play model, was another international early childhood curriculum model gaining much attention. It was focused on children's right to self-directed and self-expressive play. Over the past 16 years, Anji Play was developed and tested by educator Cheng Xueqin and has been adopted by 130 public kindergarten classrooms, serving over 14,000 three- to six-year-olds in Anji County, China. In the mornings children spend up to two hours deeply engaged in complex open-ended play that involved risk, causal reasoning, and pretense with specialized culture-based equipment and natural materials in a minimalist outdoor environment (Brussoni, Olsen, Pike & Sleet, 2012; Buchsbaum et al., 2012). Teachers were trained as keen observers, used digital devices to document children playing, and then gathered the children as a group to observe and reflect on the digital recordings of themselves. Next, teachers provided children with multiple opportunities to reflect on, problem solve and improve their play skills (Buchsbaum et al., 2012). Finally, children made use of open-ended art materials to represent their play stories (Roskos & Christie, 2011).

The kindergarten continuum.

The kindergarten continuum identified by Miller & Almon (2009) identified a range of kindergarten classrooms that was divided into four approaches. These approaches were: 1) laissez-faire or loosely structured classroom; 2) classroom rich in child-initiated play; 3) teacher-guided focused experiential learning; and, 4) didactic, highly structured classroom.

The two extreme approaches on the continuum were laissez-faire or loosely structured classroom; and didactic, highly structured classroom. In the laissez-faire approach there was ample time and space to play, but no active support from the teacher. Often the laissez-faire approach resulted in a chaotic classroom. At the other end of the kindergarten continuum was the didactic, highly structured classroom, which often included teacher-led instruction, scripted teaching, and little or no opportunities for play.

The two play-based approaches that were less extreme on the kindergarten continuum and most effective for children's participation in the learning process, were classroom rich in child-initiated play and adult-guided focused, experiential learning. The child-initiated kindergarten approach was "free play initiated by children" with the active presence of the adults (Graue, 2010, p. 33) where children were given open-ended periods of time indoors or outdoors and engage in exploring thoughtfully selected or designed learning materials. In the teacher-guided experiential or "semi-structured contexts" (p. 33), teachers intentionally initiated and guided learning with fun, hands-on, experiential learning, always looking for opportunities to "strengthen the richness of play activities" (p. 33).

According to Miller & Almon (2009), for play to be most effective in kindergarten, play should not be laissez-faire, where there was ample play without adult guidance, or highly-structured teacher-led environment with little or no opportunities for play. Instead it should be "a balance of child-initiated play in the presence of engaged teachers and more focused experiential learning guided by teachers" (p. 12). This balance of child-initiated play and adult-guided play, often called playful learning or guided play. Playful

learning was determined by identifying the role of the adult and the child in the play situation, where the child was an active collaborator and the child's interests were central (Weisberg et al., 2013). Playful learning was earlier emphasized as educational play by Dewey and a critical element of inquiry-based, project-based curricular approaches (Park & Lit, 2015).

Many studies on play (Christie, 1983; Galda, 1982; Isenberg & Quisenberry, 2002; Kamii, & DeVries, 1980) have shown that both child-initiated play and teacher-guided hands-on play were central to young children's development and learning. Child-initiated play with the active presence of adults enhanced young children's understanding about concepts (Ranz-Smith, 2007), social-emotional, and physical skills (Weisberg et al., 2013). It was self-selected by the child and was worthwhile in itself. It was fun, flexible, involved active engagement, often with an element of make-believe and no extrinsic goals. According to Elkind (2008), free child-initiated play "is motivated by pleasure. It is instinctive and a part of the maturational process. We cannot prevent children from self-initiated play; they will engage in it whenever they can" (p. 3).

Teacher-guided focused play, where the teacher planned and facilitated children's play towards specific learning goals (Ranz-Smith, 2007), contributed to the advancement of physical competence and social-emotional skill development, along with the promotion of self-regulation, creativity, language, problem solving, and the motivation to learn (Berk, Mann, & Ogan, 2006; Bodrova & Leong, 2003; Singer et al., 2006). Furthermore, Miller and Almon (2009), argued that children who engage in more complex socio-dramatic play have greater language skills, better social skills, more empathy and imagination, and a clearer sense of what others mean than when engaged in non-play approaches. Additionally, children who assumed complex roles, used props, scenario and rules, were less aggressive and demonstrated more self-control and higher levels of thinking than non-players (Bodrova & Leong, 2003).

Realities of play-based learning.

Research has shown that despite the NAEYC's DAP position statement, which described the "complex and rewarding work done by excellent early childhood educators" (Copple & Bredekamp, 2009, p. viii.), and the decades of studies about the benefits of playful learning, early educators still vary in their beliefs and understanding about how to effectively incorporate developmentally appropriate play techniques in their curriculum (Ranz-Smith, 2007; Trawick-Smith, 2005). Some teachers focus on the development of the whole child through a variety of instructional strategies, including how small groups of students engage in meaningful complex play. Some teachers focus exclusively on cognitive skills through developmentally inappropriate strategies, such as close-ended worksheets, scripted, teacher-led, whole class instruction, and limiting or eliminating play (Trawick-Smith, 2005).

Even with years of research confirming that play was critical to children's learning and development, play was often misunderstood not just by educators but by the general public. This has been due to the many myths surrounding play. According to Kostelnik & Grady (2009), five of the common myths about play were: "1) play is like dessert; enjoyable, but nonessential; 2) children play when they have nothing else to do; 3) play and learning are two separate activities; 4) if children are playing, adults aren't teaching; and, 5) there is not enough time for children to play—we have to get them ready for school, the next program level, the next grade, the world of work" (pp. 116-117).

Section summary.

This section covered play-based curriculum models in the field of ECE and play approaches along a kindergarten continuum. The play-based curriculum models are for classrooms or settings for infants through third grade. The models include the non-play curriculum approach, the hands-off approach, the narrowly focused play intervention, and the broadly focused development model. The kindergarten continuum play approaches were the laissez-faire classroom and highly structured classrooms at the extreme

ends of the continuum; and child-initiated play and teacher-guided experiential learning in the center of the continuum. Research has shown that a balance of child-initiated play and teacher-guided rich experiential learning was the most effective approach in kindergarten. Even with backgrounds in DAP, there are variations among kindergarten teachers in how they understood and could effectively incorporate playful learning in their curriculum. Myths about play continue among educators and the general public in America.

The Standards and Accountability in Public Schools

In the mid 1990's, the increased focus on standards and accountability in the U.S. public school system boosted demands to meet academic expectations and achieve higher scores on tests in all schools. This amplified the use of didactic teaching or teacher-centered practices (Parker & Neuharth-Pritchett, 2006) and the reduction of play-based learning in kindergarten and primary grades (Miller & Almon, 2009).

Historical overview of standards and accountability movement.

Besides, John Dewey and the progressive education movement from 1915-1952, there have been other school reform initiatives to improve the U.S. public education system; however, no other report or event had been as influential as the publication of *A Nation at Risk: The Imperative for Educational Reform* in 1983 (Calfée & Wilson, 2016). Prepared by President Ronald Reagan's National Commission on Excellence in Education, the report stated that public schools led by states were broken and that the federal government needed to fix it if the U.S. wanted their high school graduates to compete with their peers from other countries. Soon after the release of the report, the nation's governors convened at the Education Summit in 1989 and established six broad goals for education to be achieved by the year 2000. The goals included: 1) course requirements for high school graduation; 2) standardized testing at key transitions; 3) increases in school time, length of day and number of days per school year; 4) teacher salaries to be professionally competitive, market-sensitive, and performance-based; and, 5) federal role in ensuring that the needs of specific groups of students were met. Two additional goals were formed later. *Nation at Risk*

was the driving force behind other reform efforts, including the America 2000, Goals 2000, and the No Child Left Behind Act (NCLB) of 2002.

After these recommendations were published, a number of education professional organizations developed standards for different subjects (Seefeldt, 2005). These standards delineated what students should know and be able to do in specific fields. For example, one of the first organizations was The National Council of Teachers of Mathematics who drafted “Curriculum and Evaluation Standards for School Mathematics” (NCTM, 1987). This was soon followed by other professional organizations and subject-matter experts in other disciplines who developed standards in science, history, English Language Arts, and creative arts.

While the intent of standards-based education was seen as essential for Americans to remain globally competitive, this vision was overshadowed by the harshness of the accountability measures implemented by the enactment of the NCLB, which scaled up the government’s role in holding local schools accountable for improved student learning outcomes (Calfée & Wilson, 2016; Goldstein, 2016). With the goal that by 2014, no child would be left behind and every student would meet test-based proficiency requirements in language arts and mathematics, the federal legislation mandated the use of academic performance indicators (API) and adequate yearly progress (AYP) benchmarks. Each state had to establish standards for reading and mathematics; test students in third and eighth grades; set points for judging proficiency or meeting standards; and, lay out an action plan for improvement. States were forced to establish rigid accountability policies that overemphasized students’ academic success for all students and federal government imposed penalties on schools when they did not meet their determined growth targets. For example, if a school did not make progress or failed to make progress through testing in a specific time-period they were labeled as underperforming. Furthermore, they received harsh corrective action or had to restructure the school, which sometimes meant replacing the principal and some of the teaching staff. In

January 2014, more than 90% of our nation's schools and districts were identified as underperforming (Calfee & Wilson, 2016).

As a result of NCLB, one of the federal initiatives that drastically changed the way teachers began to think about reading instruction was presented in the National Reading Panel (NRP) Report in 1997 (Calfee & Wilson, 2016). The NRP Report began as a project requested by Congress to assess the status of research on the effectiveness of the various approaches to teaching reading. After reviewing numerous studies, the panel rejected 99.5 % of the studies done in the past thirty years and decided to conform to a simplistic view of reading, which was to teach young students sounds and letters (phonemic awareness), letters and words (phonics), comprehension and fluency. The flawed NRP Report (Yatvin, Weaver & Garan, 2003) provided support for the Reading First (RF) initiative under NCLB, which was a competitive grant program to ensure that students were reading at grade level or above by the end of third grade. This program allowed the government to approve the use of commercial scripted reading programs which emphasized a heavier phonics approach, through “low level curriculum teaching low-level thinking skills,” including “redefining what it means to be a teacher” (Garan, 2004, p.145). Later, it was found that RF had no effect on student learning and phonemic awareness.

Impact of standards and accountability on kindergarten.

Under NCLB, as school districts or schools used standards to reach academic achievement goals and meet AYP, there was a downward pressure to boost academics in the earlier grades (Bowdon, 2015; Goldstein, 2007a, 2007b; Miller & Almon, 2009). With the goal for all students to read at grade level or above grade level by the end of third grade, many school districts and schools “cracked down hard on kindergarten” (Goldstein, 2016, p. 191). State-level and district administrators influenced by the trend of using scripted language arts curriculum mandated that teachers follow the curriculum (Yatvin et al., 2003). The scripted curriculum prescribed what children should know and be able to do at various grade-levels and

created a number of unintended consequences for children, teachers, and schools (Copple & Bredekamp, 2009). These included poor teaching practices, excessive whole group lecturing, fragmented teaching of discrete objectives, and reduction of rich play, hands-on science, collaboration with peers, and the arts. Numerous studies (Bassok et al., 2016; Bowdon, 2015; Hatch, 2005; Miller & Almon, 2009, Parker & Neuharth-Pritchett, 2006; Minicozzi, 2016) revealed that kindergarten teachers' practices became more academic in nature, and their frustrations and perspectives were sometimes shared on social media, via teacher message boards (Lynch, 2015). Even teachers who believed in DAP found that their practices were often inconsistent with their beliefs as they struggled to meet school and district accountability demands (Parker & Neuharth-Pritchett, 2006; Ranz-Smith, 2007), with some teachers who perceived that worksheets were essential to their teaching and getting kindergarteners ready for first grade (Lynch, 2015). These sociopolitical pressures (Goldstein, 2008, 2016) were also an ongoing debate with other primary grade teachers, from PK-3, who were trained in DAP (Goldstein, 1997).

One recent study (Bassok, et al., 2016) using nationally representative data sets examined the changes in kindergarten classrooms from 1998 to 2010 and discovered that there was a heightened focus on academic skills and a reduced focus on play. The study also found that over a period of twelve years, there was amplified time spent on teacher-directed instruction and assessment to advance literacy and mathematics content and substantially less time spent on art, music and child-selected activities. In high pressured, heavy academic classrooms, where children were taught primarily through didactic practices, there was an increase in children becoming unmotivated and losing their sense of their own competence in making choices, while also lowering student achievement in later grades (Copple & Bredekamp, 2009; Macron, 2002). Overall, kindergarten children had formal education, but less time to explore and build their social skills with peers and adults, yet they are still “young children whose needs are distinctly different from their older school peers” (Graue, 2010, p. 30).

Introduction to Common Core State Standards.

Upon the heels of NCLB, a coalition of governors, higher education faculty, and K-12 educators attended meetings convened by the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO) to develop a national set of common expectations for students from K-12 grades (NGA & CCSSO, 2010). The Common Core State Standards (CCSS) were administered at the state-level and not by the federal government (Calfee & Wilson, 2016). According to the authors of the CCSS, these standards considered real-world learning goals for all students to prepare them for college, career, and life, beginning with literacy and mathematics standards. (Bowdon, 2015; Goldstein, 2016). As of August 2015, CCSS have been adopted by forty-two states, the District of Columbia, three territories and the U.S. Department of Defense schools, with varied implementation timelines.

There were two separate documents for CCSS. One was the CCSS for English Language Arts and Literacy in History/Social Science, Science, and Technical Subjects (CCSS-ELA). The other document was CCSS for Mathematics (CCSS-M). These standards were considered a vast improvement over the lengthy state-level academic content standards and were more rigorous and complex than state academic standards. With the goal of preparing high school graduates to be ready for college and careers, the CCSS highlighted the need for language development, critical thinking, deep conceptual knowledge and a dependence on evidence from written sources, even for kindergarteners and primary grades (Calfee & Wilson, 2016; Goldstein, 2016).

The authors of the CCSS stated that the standards were not a curriculum or prescribed set of teaching practices, rather “The standards define what all students are expected to know and be able to do, not how teachers should teach. For instance, the use of play with young children is not specified by the standards, but it is welcomed as a valuable activity in its own right and as a way to help students meet the expectations in this document” (NGA & CCSSO, 2010, p. 6). With this statement in the CCSS document

there appeared to be an opportunity to reclaim play as a teaching strategy along with other developmentally appropriate instructional strategies in public school kindergarten. However, at the same time, there were concerns and cautions with how state education agencies and schools were proceeding with the early implementation of CCSS; and even disagreements about certain CCSS kindergarten standards among educators, including kindergarten teachers (Almon, Carlsson-Paige, & McLaughlin, 2015).

Hope and skepticism with Common Core in kindergarten.

According to Calfee & Wilson (2016), when the new CCSS were rolled out in 2010, there was hope and enthusiasm for a new vision of public schools with control by the state government rather than federal government. However, because NCLB was still in law, it was challenging for educators and the general public to view CCSS without the influence of NCLB. In addition, due to a lack of clear guidance at the onset about how to implement CCSS, there was a proliferation of packaged curriculum from several publishers which caused alternative interpretations of CCSS. Moreover, the pending imposition of summative testing programs soon overshadowed the CCSS and created a mood of anxiety, uncertainty and frustration.

Although CCSS was intended to bring good news for kindergarten and primary grades in allowing for the incorporation of play to help students achieve CCSS, there were also many barriers that prevented teachers from using playful learning curricular approaches. One barrier was that in the rush to adopt and implement CCSS, many school districts put their funds into purchasing scripted literacy and mathematics curriculum, including textbooks and workbooks (Bowdon, 2015; Calfee & Wilson, 2016). The result of paying for scripted curriculum greatly reduced the funding for other play equipment and open-ended materials, like art supplies, water tables, costumes for socio-dramatic play, and blocks. When schools used a scripted curriculum often school administrators were more likely to mandate teachers to follow such practices as, using a pacing guide or spending a specific period of time on reading and math instruction

which created little flexibility for ample time for play (Bowdon, 2015). Another barrier, was that many kindergarten teachers were not trained on the value of play or how to use play in the curriculum. Therefore, it was much easier for them to rely on a scripted curriculum and teacher-led didactic methods.

Unfortunately, when teachers strictly followed “a prescribed curriculum plan without attention to individual children’s interests and needs of the specific and changing context” (Copple et al., 2014, p. 70), then teaching became developmentally inappropriate. Finally, with the vertical alignment of CCSS, there was reinforced pressure on kindergarten teachers to get their students ready for first grade.

Some educators (Almon et al., 2015) argued that a specific CCSS reading standard for kindergarten, puts undue pressure on teachers to prepare all children to read by the end of the kindergarten year. In addition, they emphasized that the standards needed to address children’s social-emotional learning goals and provide greater flexibility with the rate and timing of the curriculum to incorporate play and implement project work. They have requested that this standard be withdrawn and redone by early childhood experts. Other educators, including the authors of CCSS, have refuted that the kindergarten reading standard is developmentally inappropriate (Pondiscio, 2015). They responded that the problem was not the CCSS reading standards per se, but rather it was in the interpretation of how children are taught to learn to read. Some school systems established end of the year kindergarten reading goals that were the same for all students, despite the fact that kindergarten was the first time some students were in a formal learning setting. Unfortunately, some school systems decided to evaluate teachers on the basis of whether students were able to attain standards (Porter-Magee, 2013). This rigid policy encouraged teachers to focus on the district’s grade-level reading expectations instead of instructing in ways that kindergarteners learn best.

Using play with kindergarten CCSS and standards of experience.

Researchers (Cook, 2016; Goldstein, 2016; Jacobs & Crowley, 2010) clarified that teaching academics need not be at odds with playful learning in kindergarten. In fact, a developmentally appropriate

play-based kindergarten would help young learners meet CCSS, as play and rigorous standards were not only possible, they were compatible. (Wohlwend & Peppler, 2015). CCSS were what students were expected to meet by the end of the school year and DAP explained how to teach the content to address the standards (Copple et al., 2014; Goldstein, 2016; Jacobs & Crowley, 2010; Trawick-Smith, 2005). Thus, there was now an opportunity for teachers to teach with the intent to foster children's whole development through playful learning and meaningful project work, while meeting rigorous CCSS, starting in kindergarten (Helm, 2015; Calfee & Wilson, 2016). Many educational researchers (Bassok et al., 2016; Copple et al., 2014; Cook, 2016; Goldstein, 2016) clarified that CCSS were improved standards that could potentially move the American public school system towards educational equity for all children if DAP was used to teach CCSS.

In addition, Katz (2007), recommended that early childhood teachers not only focus on academic content standards, but also emphasize the *standards of experience* that each child would benefit from, such as, "be intellectually engaged and absorbed . . . experience the satisfaction that results from overcoming obstacles and setbacks and solving problems . . . help others to discover things and to understand them better . . . [and] feel that they belong to a group of their peers" (p. 95).

Subsequently, these researchers maintained that to understand how to resolve the tension between DAP and how play can help children achieve the CCSS and other standards begins with an attitudinal shift by teachers, school leaders, and others in education.

Section summary.

Through the years, some of the problems with the NCLB fell into several categories, including, the emphasis on government approved commercial scripted curricular programs; the dominance of high-stakes summative testing of student achievement; and, the federal government's harsh penalties when schools did not meet their determined growth targets. Consequently, the standards and accountability movement, fueled

by NCLB to improve the U.S. public school system, pushed child-oriented play-based curriculum out of kindergarten classrooms and replaced it with a didactic approach to teaching of literacy and mathematics. As of August 2015, the new Common Core State Standards (CCSS) have been adopted by over 42 states; however, the standards have brought a mixture of hope and skepticism. The CCSS allowed play to be used as a welcomed activity to meet the standards; however, there have been barriers, such as, rigidly using scripted curriculum, which has decreased funding for play equipment and materials, and less allotment of time and flexibility for play in kindergarten. Another barrier was the lack of understanding by kindergarten teachers in how to use play-based approaches in their classroom practice. Some early education researchers identified that specific kindergarten CCSS were developmentally inappropriate, while others clarified that CCSS can be met using developmentally appropriate instructional strategies. However, work is needed to broaden the thinking of teachers and school leaders to embrace the idea that play-based teaching approaches can meet rigorous CCSS.

Teacher's Role in Making Intentional Pedagogical Decisions

With the CCSS there was an acknowledgement of “the classroom teacher as the most critical factor for promoting a quality school” (Calfée & Wilson, 2016, p. 104). This mirrors a statement made in the beginning of this chapter, that the teacher has a significant role in making intentional pedagogical decisions that promote children’s optimal learning and development (Epstein, 2007; Graue, 2010). Thus, it was important to examine the research on how kindergarten teachers can recognize their own mental barriers, vulnerability about play (Paley, 1986), and how play is often misunderstood by most people, as they reconcile the tensions in their beliefs about developmentally appropriate play-based practices with the increased expectations for academic achievement in their institutions (Ranz-Smith, 2007; Wohlwend, 2007, 2009).

First, Vivian Paley (1986), a kindergarten teacher turned teacher researcher, discovered that by tape recording what was going on in her classroom, she uncovered that effective teaching was about stepping down from being the director to being genuinely curious about what children might say or think and the value of active listening to children's responses with anticipation, "like you would bring to the theatre when a mystery is being revealed" (p.128). She found her classroom was a "unique society to be studied" (p.124). Paley revealed that when classroom discussions were about fantasy, fairness or friendship, there was a large jump in children's participation. When these discussions turned to arguments, children revealed the outer limits of their verbal and mental skills, especially during socio-dramatic play. She entered into children's play with the questions, such as, "What were the effects of my intervention? When did my words lead the children to think and say more about their problems and possibilities and when did my words circumvent the issue and silence the actors?" (p.124). Paley explained that the teacher's job was to supply the glue to help children connect socio-dramatic play to the classroom reality. Eventually she made storytelling and story acting the central feature of her classroom.

Secondly, Wohlwend (2007), highlighted that educational best practices were shaped not only by teachers' individual philosophical teaching approaches, "but also by their perception of their power to decide what happens in their classrooms" (p.19). She interviewed five kindergarten and first grade teachers, who had been incorporating literacy play into their curricular practices. They shared their insights about the tensions they experienced in balancing the conflicts between incorporating play, being good team players, and contributing to their school's achievement goals. Teachers voiced a prevalent cultural model of play as the work of children by using ambiguous language to create an "intellectual space" (Goldstein, 2007a, p. 52), where together they could be innovative in their diverse perspectives while negotiating clashing educational expectations. This kind of professional space with other teachers provided an opportunity to think and scrutinize one's perspectives, helped teachers better understand the "unforgiving complexity of

kindergarten teaching” (Goldstein, 2007a, p. 52), and consider the range of opportunities that can guide their pedagogical decisions and actions.

Wohlwend’s research (2007, 2009) found that for teachers to reconcile their teaching practices with their administration’s goals, and still feel they were free from self-imposed rules and institutional restrictions, they used hybridity or innovation as a *tactic* (de Certeau, 1984). According to de Certeau, (1984), *strategies* were used by people who were linked with institutions and structures of power. They were the "producers" who could be isolated from an environment, while individuals were “consumers” acting in an environment not defined by strategies. In contrast, *tactics* were available to the ordinary person, the consumer, who used everyday practices, like “walking, speaking, reading, [and] cooking.” *Tactics* were apprehended in spaces for people to reclaim their own autonomy from external forces of commerce, politics, and culture. Wohlwend uncovered that with the *tactic* of hybridity or innovation, the teachers in her research study saw themselves as compliant while being potentially free from self-enforced compliance with their institutional constraints. She also identified play and joking between the teachers as *tactics*. Wohlwend argued that *tactics* allowed teachers to hold on to their teaching beliefs and maintain cohesion with the rest of their colleagues.

Thirdly, Wohlwend (2009) argued that teachers can close their doors and just teach, but this can be further isolating and mask institutional responsibility and collective action necessary to produce systemic change. She explained that the discourses of good teaching in early childhood classrooms, such as, the whole child versus the cognitive child (Zigler & Bishop -Josef, 2006); or play versus work, have been unresolved in the United States (Frost et al., 2005). These dichotomies were opposing global discourses of good teaching, between nurturing play versus compliant work or accountability. She acknowledged that teachers defending play-based learning in these “no-nonsense times” (p.8) found themselves feeling frustrated about this ongoing, unresolved debate. Yet, when teachers opposed the underlying pushdown of

academic expectations in their desire to defend the need for play for children, they often tried to reconcile both sides and blame themselves if they were not able to come to a resolution. She emphasized that teachers need to recognize that the past and present layered discourses about teaching were not just an individual teacher's responsibility, rather a broader "discursive clash" (p.1) which included families, schools, state and federal government, and teacher education programs at universities. When teachers were aware of the wider and more precise discourses, teachers stopped blaming themselves and moved past frustration and the emotional stress of depending on impossible goals, and progressed into intellectual spaces for creative thought and collaborative dialogue with others who want to improve education for all students. A recent study of American teachers (Rentner, Kober, & Frizzel, 2016), revealed that teachers were concerned how the teaching profession has become extremely complex and demanding, with many changes in the larger educational agenda, and desired for their voices to be factored into major educational decision-making at the local-, state-, and national-levels.

Fourthly, Wohlwend & Pepler (2015) uncovered that young children were losing more playtime as teachers bought into the false dichotomy of work versus play or all rigor and no play when addressing higher-level standards. Instead teachers were able to meet the expectations of the CCSS by combining rigor with play, and view play as a time for "working playfully" (p. 19). Thus, making time for "working playfully" became an opportunity for students to think critically, creatively and more flexibly. One curricular model that combined rigor with play that Wohlwend has been developing and investigating was the "playshop." This was a curricular framework that integrated arts, technology, science, and literacy and engaged children in playful, collaborative learning. Her research started with a teacher study group as teachers studied popular media and developed the literacy play curriculum. The Literacy Playshop (Wohlwend, 2013) gave children opportunities to learn to use digital cameras to create live-action videos of their favorite popular media characters. Children used play as a multimodal literacy in producing multi-

media products. The Literacy Playshop then led to the creation of the Design Playshop, which added science and the arts to teach children such concepts, as electronics when they created circuitry boards using playdough's conductivity to activate colorful light emitting diodes. The playshop curricular model helped teachers reconfigure play as a core component of the curriculum so all children could access rigorous learning that built upon their prior experiences and cultural knowledge.

Section summary.

This section emphasized how teachers' intentions to incorporate a developmentally appropriate play-based curriculum approach to address standards resulted from their philosophical beliefs and professional attitudes in how children learn many things through playful learning and their perceptions of their power to make pedagogical decisions in their practice. Furthermore, teachers' decisions were positively influenced by carefully observing children and reflecting on these observations and engaging in collective professional dialogue with other teachers. In these communities of practice, teachers were able to understand the broader competing discourses of education, such as the false dichotomies of play versus work or no play and all rigor, and to consider new ways to reconfigure play as a core literacy when children were engaged in using digital tools to play and create multimedia productions.

Organizational Support for Play-Based Kindergarten and PK-3 Reform

When kindergarten teachers were attempting to make pedagogical decisions regarding classroom practices based on DAP, they needed the understanding and guidance of their institutions, especially their school principals. Moreover, for principals to gain competence as instructional leaders for effective kindergarten and PK-3 reform, they needed district- and state-level administrative support.

Role of school principals and district and state administration.

First, researchers have shown that the role of the principal was critical to leading high quality curriculum, instructional, and assessment practices that promote young children's learning and development

(Goldstein, 2016; Graue, 2010; Kagan & Kaurez, 2006; Minicozzi, 2016). They identified a number of strategies that principals could use to improve kindergarten practice. One strategy was to enhance teachers' pedagogical decisions to incorporate a developmentally appropriate play-based approach, including giving teachers time and opportunities to voice their concerns and be engaged in shared decision-making about the evaluation and selection of curriculum and assessments; and, the amount of flexibility teachers need in the rate and timing of the implementation of the curriculum so teachers' time could better support children (Copple et al., 2014). A second strategy was engaging teachers in modifying the standards to reflect the science of child development, including standards that addressed children's social emotional development and approaches to learning. A third strategy was providing resources, play equipment and materials, hands-on manipulatives, dramatic play clothes, arts easels for play-based kindergarten (Bowdon, 2015; Lynch, 2015).

Second, with the adoption of the CCSS and other standards by hundreds of schools across America, commercially published scripted curriculum aligned to CCSS have multiplied. According to Aoki (2011), anytime curriculum was planned outside of the classroom, the curriculum might "extinguish the salience of the lived situation of people in classrooms and communities" (p. 362). He argued that curriculum developers outside of the classroom needed to understand who teachers were and what teaching was like with their students. Aoki warned, "Curriculum developers need to be sensitive to ways in which the curriculum can influence the ways people can be attuned to the world" (p. 360); if not curriculum could become irrelevant and lack real-life connections for students and teachers. Similarly, Duncan-Owen (2009), found that it was critical for principals to seek the guidance of their teachers, in helping them weigh the merits of scripted curriculum programs with the needs of students and realities of how teachers would use them, before making an investment. She found that although standardized curriculum encouraged consistency and made it easier for teachers to plan lessons and for principals to monitor, it was not a solution

for improving the quality of the curriculum. Furthermore, even if the scripted program was supposed to be rigidly followed with fidelity, teachers who strived to differentiate the curriculum to meet the individual needs of all students, invariably, adjusted and adapted the curriculum program. In fact, a commercial program was not necessary for high quality instruction. Therefore, if principals decided to use a scripted program, Duncan-Owen recommended that they use it as a beginning point, and still provide all teachers with effective job-embedded professional development and support, like mentoring, to improve how teachers can skillfully make multifaceted decisions when differentiating instruction for all students.

Third, over the last decade PK-3 initiatives (Stipek, Clements, Coburn, Franke, & Farran, 2017) have become a focal point for school leaders with the vision to improve the alignment between preschool and early elementary grades, sustain the gains that children have made in high quality preschool, and establish overall positive outcomes for young learners. According to Charlesworth (2014), when it comes to continuity between these grades “Lack of play opportunities represents one of the major factors that create the gaps among preschool, kindergarten, and primary education” (p. 434). This was especially critical because symbolic play was needed for children’s development as they transition from “purely concrete activity connecting the concrete with the abstract” (p.434). Consequently, in response to addressing the gaps and the lack of continuous high quality preschool through primary grades, the National Association for Elementary School Principals (NAESP, 2014) created a guide about competencies that principals need to lead PK-3 learning communities at their schools. These competencies were: 1) embrace the PK-3 early learning continuum; 2) ensure developmentally appropriate teaching; 3) provide personalized blended learning environments; 4) use multiple measures of assessment to guide growth in student learning; 5) build professional capacity across the learning community; and, 6) make the school a hub for PK-3 learning for families and communities.

Section summary.

This section included the role of the principal to support and utilize the pedagogical decisions of teachers to enhance play opportunities in kindergarten and to become more cognizant in what to consider when weighing the merits of commercially developed scripted curricular programs. This section also focused on the role of principals as leaders in the growing PK-3 reform efforts in America to close the gaps and improve the continuity of high quality education from preschool through elementary school.

Broader System Supports for Quality Kindergarten and PK-3 Education

The literature has provided several external supports that can help principals and district- and state-level administration in public school systems to improve the quality of kindergarten and continuity of highly effective PK-3 instruction. These external supports included a workforce framework with recommendations on core competencies of ECE professions in America; how to improve teacher education programs in preparing future ECE professionals; and public policies that ensure high quality kindergarten and PK-3 instruction.

Unifying workforce framework for effective teaching practices.

School principals and district and state administration in public schools need external supports to ensure they can hire from a pool of high quality teachers to ensure optimal kindergarten classrooms and high quality PK-3 education. Unfortunately, there has been a lack of a unifying cohesive workforce framework for the ECE professionals in America. Therefore, Institute of Medicine (IOM) & National Research Council (NRC) (2015), conducted a study that identified core competencies for all early education professionals working in programs serving young children, infancy through third grade, that were striving to become high quality ECE programs. They identified that one of the core competencies was a strong knowledge base about the science of child development and effective early learning practices or DAP. This knowledge base has been found to strengthen the key competencies that early educators need to effectively

enhance children's learning and development, including how play can be used in all areas of the curriculum to build the foundational skills that children need to be successful in school and life. Some of the other core competencies that this knowledge base would help professionals with, were, 1) how to effectively support all developmental domains of the child; 2) how children learn major subjects (e.g. language and literacy, mathematics, arts, science, social studies); 3) how biological, cultural and environmental factors affect children's development; and, 4) how to implement relevant and meaningful curriculum, instruction and assessments. Having a strong knowledge base in child development and DAP was vital in shaping early childhood teachers' philosophical belief system on how to implement high quality ECE teaching practices, including how play enhances children's learning in all areas of the curriculum.

Effective professional development and learning communities of practice.

According to Darling-Hammond & Richardson (2009) for professional development to be effective in improving teachers' practices, it can no longer be the traditional workshop-type model. Instead effective professional development needs to be job-embedded, coherent, intensive, sustained, and taught through active learning processes. Effective professional development needed to be tightly linked to curriculum with a focus on student assessment data and tied to collaborative and collegial learning communities or professional communities of practice (Calfee & Wilson, 2016). These communities of practice helped teachers create shared thinking, build knowledge from the inside out, and establish more rapport and common understanding among colleagues in how to promote school improvement beyond the individual classroom (Goldstein, 2016, Lynch, 2015; Minicozzi, 2016; Wood & Bennett, 2000). These communities of practice created the intellectual space for inquiry and reflection where teachers raised issues, took risks, and addressed dilemmas in their own practice. With communities of practice, school reform happened more broadly when entire grade-levels, schools and departments were engaged to improve instruction together. In addition, these collaborative working sessions were forums for veteran kindergarten teachers to mentor and

coach new kindergarten teachers in how to incorporate effective teaching approaches in standards-based classrooms (Kagan & Kaurez, 2006).

Enhancing teacher education programs for future PK-3 professionals.

With greater attention to the efficacy of teaching in the 21st century, recommendations on how teacher education programs may be upgraded to better prepare future professionals have been recognized. Darling-Hammond (2006) has identified three components that were found in stronger, more effective teacher education programs. One component was a “tight coherence and integration among courses and between course work and field work and clinical work in schools” (p. 306). The second component was an “extensive and intensively supervised clinical work—tightly integrated with course work” (p. 307) using emerging pedagogies that link theory and practice. The third component was “a major overhaul of the relationships between universities and schools” (p. 308) towards a closer and proactive relationships with schools that serve diverse learners effectively and model excellent teaching.

A key priority that has been raised by a number of studies, has been to establish teacher education programs with a focus on teaching for social justice in education (Darling-Hammond, 2006; Lee, 2011; Villegas, 2007), and tapping into future professionals’ inner strengths as change agents to improve education by addressing the academic, socioeconomic, and cultural gaps that separate learners (L. Santamaria & A. Santamaria, 2012). To address the achievement gaps in preschool through third grade, meant heightening future professionals’ sense of awareness about children’s primary ways of learning (Ranz-Smith, 2007) or the “psychological, physical, and cultural dimensions of child development (Graue, 2010, 34), including the value of play in children’s learning, and understanding the guidelines of DAP and how to use playful learning in PK-3 grades (Copple & Bredekamp, 2009; Graue, 2006, 2010).

A study on a teacher education program (Sherwood & Reifel, 2010, 2013) revealed that future professionals who took ECE college courses, often have contradictions and multiple definitions about play,

and perceived play in young children's learning as valuable but not essential. Furthermore, Jung & Jin (2014, 2015), found that when specific ECE college coursework and field practicum were carefully designed and focused on play, there was greater intention by future professionals to incorporate play in their future classrooms. They emphasized that well-designed play courses should include engaging discussions, thoughtful assignments and exams, reflection essays, and opportunities for future professionals to design play activities that could be implemented, observed, and assessed with young children in field settings. They discovered that courses and field settings that focused on play, including the types of teacher roles in facilitating play (Enz & Christie, 1997; Ranz-Smith, 2007), helped in the construction of future professionals' positive perceptions about play in children's learning and enhanced the integration of play in their future classrooms.

Additionally, Minicozzi (2016), identified two techniques on how teacher education programs can help future professionals be better prepared to face the curricular and instructional challenges in this era of standards and accountability. One technique was to ensure that courses were integrated with developmentally appropriate content learning standards and with multi-dimensional learning experiences for students. A second technique was to teach future professionals how to evaluate pre-packaged commercial curriculum so they were able to select and assess planned curriculum and use it to meet the individual needs of all students.

Public policies that improve kindergarten and PK-3 initiatives.

Research revealed across our nation there has been greater focus on research and policies to improve the continuity of PK-3. For instance, studies from the Society for Research in Child Development (SRCD) focused on district and school policies and practices to improve the PK-3 instructional practices (Stipek et al., 2017). Some of their recommendations were: 1) a coherent instructional framework; 2) curriculum that has sequenced learning opportunities that increase in complexity with the discipline and

alignment with typical learning trajectories for all students; 3) formative assessments linked to standards and data systems that follow children from preschool through elementary school; 4) coordinated professional development; 5) the same coach working with teachers across PK-3; and, 6) opportunities for teacher collaboration across PK-3. In addition, Fromberg (2015), explained that there were two methods that could reconcile assessment standards and play. One was to enlarge the standards to include learning approaches that were fostered by playful experiences, such as, measuring emergence of creative, adaptive problem solving and positive learning attitudes. The second way, was to include performance assessments, in addition to or in replacement of standardized tests.

One way to improve the lack of play opportunities, a major gap between preschool, kindergarten, and primary grades (Charlesworth, 2014), was to use research-based information to advocate for public or organizational play policies for integrating play into ECE settings (Stegelin, 2005). From this research emerged the kinds of play policies that would support play-based environments, such as: 1) active play promotes healthy, mental and physical beings; 2) the brain as the critical link between play and optimal cognitive and physical development; and, 3) the close relationship between play, early literacy, and social competence matters. In addition, play policies could address the false dichotomy of whole-child versus cognitive-child because play provides opportunities for children to learn and develop cognitive and non-cognitive skills. Therefore, “Defending play should not be necessary, just as mustering support for cognitive training should not be required . . . To foster learning, parents, teachers, and policy makers must focus on the whole child.” (Zigler & Bishop-Josef, 2006, p.30)

When it comes to PK-3 reform, research has shown that the kindergarten year might finally be getting much needed attention. According to Kagan & Kauerz (2006), the majority of Americans wanted kindergarten to retain unique qualities, as a whole child, family-friendly, relationship-building year for children and families, and not succumb to an overly academic kindergarten; therefore, they recommended

that policies at the federal-, state-, district-, and school-levels be developed to guide the implementation of the ideal kindergarten. They emphasized policies that made kindergarten universally available and accessible, and of high quality. One state that has taken an initial step towards PK-3 reform by updating kindergarten guidelines was New Jersey. These kindergarten guidelines (New Jersey Department of Education, 2011) included, how kindergarteners learned through play and recommended a balance of child-initiated play and adult-guided focused hands-on learning. Furthermore, these guidelines recommended that for full-day kindergarten, children should play for at least one hour in learning centers and have an additional extended period engaged in outdoor play.

In addition to the national organizations, like NAESP, NAEYC, and the Society for Research in Child Development (SRCD), the Education Commission of the States (ECS), has produced a guide entitled, “K-3 Policymaker’s Guide for Action: Making the Early Years Count” (ECS, 2016). The goal of this guide was to provide state policy makers with evidence-based recommendations for K-3 reform as they re-craft their Every Student Succeeds Act (ESSA) plans. It was developed by top experts in K-3 education and reflected the research and practices that have the best potential of impacting both academic and non-academic student outcomes. The guide recommended a focus on the following: 1) funding; 2) workforce development of teachers and leaders; 3) alignment across the K-3 continuum; 4) curriculum, instruction, assessment; and, 5) accountability metrics that are not student-based. The guide also emphasized the use of curricula that emphasizes student-centered learning through developmentally appropriate play and exploration that is sensitive to a student’s age, individuality, culture, and home language.

Section summary.

This final section highlighted literature on resources and initiatives outside of the public school system that can improve kindergarten and PK-3 teaching practices. Literature focused on the need for all early educators to be knowledgeable about child development and effective early learning practice; the need

for job-embedded coherent and intensive professional development and professional learning communities; teacher education programs that raises the awareness of the disappearance of play as a social justice issue in a democratic society for all children; and how future professionals can be agents of change or agents of democracy. This was followed by research on how to improve university coursework and student teaching to adjust future professionals' perceptions and improve their intentions of implementing play in the curriculum. Finally, there was research on public policy recommendations needed to improve the quality of kindergarten and PK-3 education.

Summary

This chapter presented a substantive review of the research literature surrounding the subject area of teaching kindergarten through playful learning in standards-based classrooms in the U.S. educational system. The literature provided a deeper understanding of the complexity of these ideas and how they have been applied and developed over time. This chapter also covered the history of kindergarten and its relationship to progressive education and other educational movements; some of the major play-based curriculum approaches; and the background behind the standards and accountability movement. Further, this review examined research on the how improvements can be made to kindergarten and PK-3 practices at the classroom-, school-, district-, state-, and national-levels, including research on how to more effective professional development and support, teacher education programs, and public policies. The intent of this literature review was to establish the background, conceptual and theoretical framework and rationale for this study.

Chapter 3: Research Methodology

The primary goal of this research study was to explore why four public school kindergarten teachers valued play and how they were incorporating a developmentally appropriate play-based approach to address the CCSS. Other sub-goals of this study were to examine the intentional decision-making teachers' employed, and the factors that supported and challenged teachers in utilizing playful learning in their curriculum. From my exploration of various qualitative research methodologies, I decided that descriptive qualitative multi-case or multiple case study was the most appropriate design to research this contemporary phenomenon.

First, I chose a multiple case study because it aligned with my interest in exploring *why* and *how* questions about the nexus of kindergarten teachers, playful learning, and standards. More specifically, I was intrinsically interested in teachers' individual and collective pedagogical decisions about this real-world phenomenon (Yin, 2014). These questions naturally led me to choose multiple case study as a relevant and appropriate method of qualitative research (Creswell, 2014; Denzin & Lincoln, 2003; Merriam, 2009; Yin, 2014). In general, case study was helpful in promoting the knowledge base of an applied field, such as education (Creswell 2014; Merriam, 2009; Yin, 2014).

The second rationale for choosing a multiple case study was that the study of each public school kindergarten teacher and how their curricular and instructional decisions aligned with current standards was a complex interwoven contemporary phenomenon in a particular context. Often the boundaries between the phenomenon and context were not clearly evident (Yin, 2014), and this seemed true based on the phenomenon of playful learning, in the context of the classroom practices of the teachers in this study. Through the case study methodology, I was able to examine more closely the multiple variables embedded in the phenomenon, including potential hypotheses that could be studied in the future.

The third rationale for using case study was because each kindergarten teacher and her classroom represented a specific and limited object of study or unit of analysis that was bounded by time and place; time and activity; and definition and context. In other words, the individual teacher and her classroom was a case and together, the four teachers became a bounded system of multiple cases (Creswell, 2014; Merriam, 2009; Yin, 2014).

Finally, I selected a multiple case study with four kindergarten teachers who experienced the same phenomenon because more than one case strengthened the external validity of my findings. With multiple cases, I conducted a within-case analysis of each case and a cross-case analysis of all four cases (Cresswell, 2014; Merriam, 2009; Yin, 2014).

In this chapter, I will explain this multi-case research strategy and how it applied to my study, including the: 1) research paradigm; 2) research design; 3) data collection and analysis; 4) limitations in the study; 5) threats to validity and reliability; 6) positionality and reflexivity of the researcher; and, 7) the participants and their settings.

Research Paradigm

The research paradigm, which is a set of basic beliefs that has guided my emerging worldview (Denzin & Lincoln, 2003), through an interpretivist/constructivist or social constructivist lens. Interpretivism/constructivism assumed that reality and knowledge was socially constructed, meaning there was no single, observable reality, rather people having multiple realities or interpretations of the same phenomenon and multiple meanings of a real-world situation (Merriam, 2009; Yin, 2014). Often these interpretations were subjective, multiple, and layered because they were formed through interactions with others or socially constructed, and negotiated through historical and cultural norms that operate in people's individual lives (Creswell, 2014; Merriam, 2009). Therefore, if knowledge and reality were socially constructed, then my role as a researcher was to understand how the four Hawai'i public school

kindergarten teachers individually and collectively interpreted and found meaning in their experiences of incorporating playful learning in their standards-based classrooms.

Research Design

Sampling of study participants.

In planning this multiple case study, I knew I would gain the most insight from public school kindergarten teachers who were using a developmentally appropriate play-based approach to address CCSS. Therefore, I used purposeful sampling to select the participants. First, to initiate purposive sampling, I determined the selection criteria for potential participants in the study. The criteria that I utilized was to identify a kindergarten teacher who was: 1) employed in a public school; 2) living on O‘ahu, Hawai‘i; 3) using a curriculum aligned with CCSS; and, 4) incorporating a play-based curriculum.

With my selection criterion, I was able to solicit names of potential teachers and their schools through colleagues who were educators with the Hawai‘i Department of Education (HI DOE) and early childhood teacher educators with the University of Hawai‘i at Mānoa College of Education (UHM COE) by using a recruitment letter (see Appendix A). Next, in my HI DOE application to conduct research in the public schools, I included the names of the potential schools and the respective principals. Once my application to conduct research was approved by the University of Hawai‘i at Mānoa (see Appendix B) and approved by the HI DOE (see Appendix C), I proceeded to contact the school principals on my list to see if they would allow me to include their kindergarten teacher in my research study. Initially I had hoped for five teachers but ended up with four teachers from four different schools, which I determined would provide sufficient data. According to Merriam (2009), when answering the question of how many people to interview, how many sites to visit, or how many documents to read, she said, “It always depends on the questions being asked, the data being gathered, the analysis in progress, the resources you have to support the study” (p. 80).

Data Collection and Data Analysis

Data collection.

Data was collected through individual and focus group interviews, documents from teachers, and entries in my own reflective journal.

First, over a four-month period, each participant participated in two, in-person, one-to-one, 60- to 90-minute interviews and all four participants participated in one 90-minute focus group interview. Before beginning the first individual interview the consent forms were filled out by each participant. (see Appendix D). The first in-person individual interview was guided by semi-structured questions on why and how the participants were able to meet standards through the implementation of a play-based curriculum. Participants were asked about the supports and challenges in implementing a play-based curriculum and how they were able to navigate these challenges. The second in-person individual interview was guided by semi-structured questions on how the classroom learning environment and daily schedule supported a playful curriculum. Both individual interviews were conducted in each of their individual kindergarten classrooms, scheduled outside of their instructional hours with none of their students present (see Appendix E for interview questions).

The focus group interview, which I facilitated, brought the four teachers together to respond to semi-structured questions that expanded upon their prior one-to-one interviews (see Appendix F). For example, one question gave the teachers an opportunity to share an artifact representing their perspectives on playful learning in kindergarten and their contributions were layered upon each other's responses. The focus group was held at a conveniently located quiet restaurant.

The documents I collected were teachers' lesson plans that highlighted how teachers used playful learning to provide instructional support to the students in their standards-based classrooms. Before the teachers provided me with their lesson plans, I asked them to redact any personally identifiable information

in these documents. Unfortunately, only two of the four teachers provided me with their lesson plans. In addition, I kept a reflective journal and wrote entries about my personal insights recorded during the data collection and data analysis phase of my study.

Data analysis.

Before I began analyzing the various sources of data from the teachers, I developed a pseudonym for each participant. Next, I organized a coding system while I began conducting an initial within-case analysis of the first case. I utilized an inductive coding process and searched for promising patterns, insights or concepts. As patterns began to emerge I made a matrix of possible categories and themes and placed all relevant data under the categories and themes and tabulated the frequency of different phrases and words. In addition, I made journal entries to capture what ideas stood out. In the process, I refined the coding system, using both codes I retrieved from my literature review and my own codes that represented concepts of potential interest, and recorded the codes in a codebook. While conducting this initial analysis, I frequently returned to my original research questions, and considered the categories and themes emerging from the within-case analysis.

Once I conducted the analysis of each case, then I conducted the next level of analysis, which was the cross-case analysis. Cross-case analysis gave me the opportunity to examine all four case records and build connections across cases. When I conducted a cross-case analysis of all cases, I analyzed cases side by side, and I confirmed common categories and themes and drew out uncommon categories and themes. From the cross-case analysis of categories and themes emerged the patterns, themes, and generalizations which aligned with the individual cases. I then wrote a draft within case analyses and the cross-case analysis with the patterns, themes, and generalizations that emerged from the analysis. From the data analysis, I then derived findings related to the main research questions, and offered implications and a conclusion.

Limitations of the Study

Due to the small sample size of four individual cases the results of this study cannot be generalized. However, I hope that this case study will shed light about some theoretical principles and lessons learned and possibly lead to defining new research. Another limitation of this research was the lack of direct observations of the teachers interacting with their students in their kindergarten classrooms. Having this additional data to see and hear the activity of the classrooms might have revealed how teachers' beliefs about playful learning were directly being applied in their teaching practice.

Threats to Validity and Reliability

It was important for the case study to be trustworthy and produce valid and reliable information in an ethnical manner (Creswell, 2014; Merriam, 2009; Yin, 2014). To this end, I identified several strategies that I employed throughout my study in order to address potential threats to validity.

Bias and assumptions.

I was fully aware as the primary researcher of this research study that I was the primary instrument of data collection and analysis. Therefore, it was necessary for me to acknowledge that my own biases and assumptions could be a threat to the validity and reliability of this study (Merriam, 2009). One personal bias that needed to be addressed was my bias as an early childhood teacher educator who maintains a belief in DAP, covering children infancy through age eight, in which learning through play is a valuable and essential teaching strategy. Therefore, to lessen the threat of my personal bias, I avoided leading questions and kept a journal to record my insights, biases, assumptions, and emotions throughout the data collection and analysis period of this study. I believe this process enhanced my sensitivity and integrity as an investigator.

Addressing possible inaccuracies in data.

Inaccuracies in the case study findings was a potential threat to validity and may have occurred when I was listening to and possibly formulating inferences about the interviews during the data collection

period. One strategy I used to address this was re-checking the transcripts to make sure the transcriptions did not contain obvious mistakes made during the transcribing process. Another strategy I used to determine the accuracy of the case findings was member checking or respondent validation (Maxwell, 2005; Merriam, 2009) by soliciting feedback on the emerging findings from the teachers who were interviewed to see if the narratives were accurate.

Positionality and Reflexivity of the Researcher

I have been in the field of ECE for over 40 years. Through these years, I have had multiple roles, including classroom teacher, county and state early childhood coordinator, director of an ECE division for a state-wide Native Hawaiian private school, director of Hawai‘i’s Executive Office on Early Learning (EOEL) in the Office of the Governor, and early childhood teacher educator at community college and university settings in Maryland and Hawai‘i. Currently, I am with the University of Hawai‘i at Mānoa College of Education, teaching future professionals in a degree program with a preschool through third grade (PK-3) focus; and providing technical assistance to EOEL’s prekindergarten program. Therefore, I am aware that my positionality, especially as a state administrator and university faculty, could easily be interpreted as a “hierarchical position or a level of informal power within the organization/community” (Herr & Anderson, 2015, p. 54). In this study, awareness of my positionality as the researcher was critically important. Essentially, positionality as a researcher means asking the question, “Who am I in relation to my participants and my setting?” It has to do with the myriad forms of border crossing that researchers do as they embark on their studies (Herr & Anderson, 2015, p. 37).

To address my relationship with my participants and their settings, I used reflective journaling to surface my world-view, theoretical orientation, biases and assumptions, and issues of power that could be a threat to the validity of the study. According to Stevens and Cooper (2009), “Reflection is the path both to self-knowledge and to greater personal efficacy. Although there were many ways to reflect, the journal was

concrete evidence of one's evolving thought processes, documenting valuable, often fleeting glimpses of understanding" (p. 3). Qualitative research is not primarily concerned with eliminating variance between researchers in the values and expectations they bring to the study, but with understanding how a particular researcher's values and expectations influence the conduct and conclusions of the study (which may be either positive or negative) negative consequences may be avoided (Maxwell, 2005, p. 108). I used a reflective journal because I felt due to my positionality, my own values and views could impact how I conducted my research and how I drew conclusions from the data.

Participants and Their Settings

The four teachers who participated in my case study were Ellen, Sheri, Kira and Annie. These were pseudonyms for the actual names of the participants in my study. Ellen, Sheri, and Kira were teaching in public schools in the Hawai'i Department of Education (HIDOE) and Annie was teaching in a public charter school under the State Public Charter School Commission (SPCSC). Both the HIDOE and SPCSC are governed by the Hawai'i Board of Education, whose members are appointed by the Governor of Hawai'i.

Ellen obtained a bachelor's degree in education (BEd) in elementary education with a minor in ECE, including a specific course on play. Later, she received a master of education degree (MEd). Ellen has taught in the state's public school system for 23 years at four elementary schools. She has been a kindergarten teacher for 14 years and a first grade teacher for nine years. For the last 13 years, she has been teaching kindergarten and first grade at a public kindergarten through fifth grade (K-5) elementary school that she helped open. This school serves families in middle to upper-middle socioeconomic brackets in a suburban neighborhood. In 2016-2017, the school enrollment was 784 students. At the time of the study, there were five kindergarten classrooms, with about 80% of incoming kindergarteners having attended preschool.

Sheri has a BEd in elementary education with an ECE endorsement, including a course on play. She was working on a MEd in curriculum studies. Sheri has taught in the public school system for 12 years, initially two years as a first grade teacher and the remaining years as a kindergarten teacher. She was teaching in one of the two kindergarten classrooms at a public K-5 school located in a dense urban neighborhood. As of the 2016-2017 school year, 72.03 % of her school's total enrollment of 226 students received federal free and reduced lunches through Title I. Title I is a program under the U.S. Department of Education (US DOE) that provides supports to students at risk and living in or near poverty.

Kira first worked as a family child care provider, raised her own children, and volunteered at their schools. This led her to complete a bachelor's of education (BEd) degree in elementary education. In 2015, Kira completed a MEd degree in curriculum studies, with a PK-3 certificate, and is now finishing a MEd in ECE. As part of her MEd in ECE program, Kira took a week-long playful learning summer institute. Since 2009 Kira has been teaching at a public K-5 school in a growing suburban area. It is a Title I school with 55.34% of their 1100 student population on the federal free and reduced lunch program during the 2016-2017 school year. Kira is one of seven kindergarten teachers at this school.

Annie had obtained a dual degree in BEd in elementary education and special education (SPED) to teach in K-6 grades. She taught for three years as a SPED teacher in a public elementary school and for the past two years she has been a kindergarten teacher in a Hawaiian-focused public charter school. Annie is currently enrolled in a M.Ed. program in curriculum studies, focused on science, technology, engineering, mathematics, social sciences and sense of place (STEMS²). The public charter school, which fosters an indigenous Hawaiian values-based and place-based education, opened in Aug. 2014 with grades kindergarten through second grade. Each year since that first year, the inaugural class moved up another grade. Students were selected through a lottery application system. Approximately 50% of the enrolled students came from the neighboring community of the school and about 50% from outside the community.

The public charter school, which had 85 students in school year 2016-2017, is located in a rural community and is governed by SPCSC.

Summary

This chapter explained why a qualitative multiple case study methodology was selected and presented the assumptions of the qualitative design. In addition, this chapter presented the research paradigm, the sites and sample selection, data collection techniques, data analysis procedures, the role of the researcher, the limitations of my study, and shared background information regarding the four participants in the study. In the next chapter, I cover the with-in case analysis of each of the four participants, followed by a cross-case analysis of all the participants.

Chapter 4: Data Analysis

As shared in Chapter 1, this study will explore kindergarten teachers' perceptions of why and how they were incorporating playful learning in their standards-based classrooms. This chapter presents the data analysis of the multi-case study. First, I present the within-case analyses of the four public school kindergarten teachers, Ellen, Sheri, Kira, and Annie. Each within-case analysis contains an introduction to the major themes that surfaced from the data, then a description of each major theme with relevant quotes, and a closing summary. Secondly, I offer a cross-case analysis that highlights the themes among the four teachers.

Ellen: Within-Case Analysis

The major themes in this within-case analysis of Ellen were: 1) strong, focused play-based philosophy; 2) the value of play in children's learning; 3) incorporating play through different teaching strategies; 4) the support of a grade-level professional learning community; 5) school leadership who trusts her professional judgment; and, 6) balancing DAP and school expectations.

A strong, focused play-based philosophy.

Ellen maintained, "The purpose of kindergarten is to lay that solid foundation to set them up for success, building them academically, emotionally, [and] socially. We can't just focus on the academics. Building that solid foundation in all three areas is what our job is."

Ellen shared an artifact, a small plastic container of store-bought playdough that represents her beliefs of how children learn and develop through play, and how she organized different learning centers for children to playfully learn in small groups. She elaborated,

I chose playdough, because if you leave playdough in the can, it's as if you don't do [learning] centers, which is not done often enough in kindergarten. If you don't do centers, then the children won't have a chance to grow and learn. It's like the playdough in the can, nothing will happen. If

you take the playdough out, you can use it in different modalities. You can use tools with it. You can cut it . . . You can use it [in] different ways. What you do with the playdough is like centers.

There are play centers, work centers, math centers, and literacy centers.

Next, Ellen explained that the playdough characterized how she facilitates children's engagement as they play in learning centers and the various skills they learn through play. She affirmed,

And when I look at the playdough, I think of it as the children. That is how I am trying to mold and shape [them] as they do centers and help them to become problem-solvers—to practice their speaking skills, to practice fine motor skills, to shape and mold them to be successful in the next grade, in the first grade.

Ellen found that when she clearly articulated the specific skills that children learn through play with the families in her classroom, they were supportive of play as a teaching strategy. She shared,

I always tell parents at the beginning of the year that your child will come home and tell you they played a lot. My teaching style is that they are learning through their play. So even though they [children] say they are playing, what they were doing [was] socializing with other children, they were role playing, problem-solving, and learning. I give them that spiel during parent orientation, before the kids come. I explain that to my parents first, so I have no one who question[s] why we are just playing in kindergarten.

The value of playful learning in the kindergarten curriculum.

Ellen confirmed that playful learning was at the heart of the kindergarten curriculum at her school because of how play supported the holistic development of children. This included how through play, children learn to become more socially, emotionally, and intellectually competent.

Teacher-designed integrated curriculum units.

To further elaborate her belief in playful learning, Ellen shared instances of developmentally appropriate integrated curriculum units or topics of study that she and the rest of the kindergarten teachers at her school developed and continue to refine. These topics of study integrated subjects such as, language arts, science, social studies, health, and fine arts and were taught using focused experiential learning that was guided by the teacher.

One of the integrated curriculum unit plans that Ellen and her colleagues taught focused on school-wide rules, called “Pillars of Success”. These were character building lessons that created a caring community of learners. This unit plan integrated social studies, health, fine arts, and community contributor goals. Ellen discovered that she could effectively engage her students in learning these concepts through singing songs. She discussed,

When we [teachers first] came to this school we started teaching the Six Pillars. Pillars of character are trustworthiness, respect, responsibility, fairness, caring, and citizenship. The meaning of these words are really hard for them [children] to understand. Knowing the difference between respect and responsibility can be very tricky. So I know when we started to teach it, I said we need to make up a song for each pillar. I am not a singer. I only know so many tunes. I wondered what tune could I use to teach them about [being] trustworthy? What does trustworthy mean? There are key things that we teach to be trustworthy, so I made up a song with motions.

Some of the other developmentally appropriate integrated units of study that Ellen shared were focused on cultural celebrations, weather and climate, and animal babies.

Teaching using playful singing and movement.

For years, Ellen incorporated singing, hand motions and movement into her curriculum units. She said, “So singing is really strong for me and trying to teach them the content through songs and the

motions.” Furthermore, as kindergarten standards became more rigorous, Ellen found that the songs and motions helped children with their story comprehension and vocabulary development. She explained,

I think singing and doing motions, help to reinforce the concepts that I’m teaching. I think this is really important to do. So a lot of [the] strong content area[s] that we want them to remember, I try to teach it in a song. For example, we teach the five senses. We always teach the five senses in a song because they have to do an assessment to tell what their five senses are. I would say, ‘remember the song and do the motions.’ Because if they don’t do the motions, it can’t register in their brains. So when they do the motions, then they remember the content that was taught.

When I met Ellen, her school was transitioning from a 12- year looping school where teachers followed the same group of children for two grades, to a traditional single grade per year structure. When her school was looping, Ellen was one of the kindergarten-first grade teachers. Therefore, when she taught kindergarteners, she knew the kinds of vocabulary words that would come up again in first grade. With this knowledge, she introduced children to unfamiliar words with gestures. She elaborated,

I know in [the] first grade science curriculum we teach certain vocabulary words. For example, ‘opaque and transparent’. So in kindergarten when we are sorting buttons, I introduce those same words. I say, ‘Do you know what word we can use to say we can see through something? It’s called ‘transparent.’ And then [we would do the motion]. Opaque means you can’t see through something. So motions like that are really important to teach vocabulary so children can remember the meaning of the words. Because an unknown word is just a word.

In addition to singing and gestures to learn new vocabulary, Ellen used these techniques to help her students recall previously learned concepts. She continued,

We teach ‘author’ and ‘illustrator’ and those are two hard words for them to remember. They get confused, but that is the standard. They have to know what the author does and what the illustrator

does. The author writes the story, we always do a motion of typing; illustrator, [we] draw in the air. Certain movements help them remember things when they say the word. So like, I would just ask, 'What does the author do?' They just look at me. Then I say 'Do the motion. Do the motion.' Then they know it. That is really strong evidence that motion[s] are important to teach. So teaching content through songs and motions are things I value as a teacher.

Teaching strategies to incorporate playful learning.

Ellen expounded on different teaching strategies she used to incorporate playful learning in her standards-based classroom. One was organizing learning centers for teacher-guided play and child-initiated play. The second teaching strategy Ellen used was child-initiated play for students to represent their developing theories and ideas. The third way Ellen incorporated play was through STEM activities, which were connected to the Next Generation Science Standards (NGSS) for kindergarten.

Playful learning through learning centers.

Ellen believed that a critical aspect of her teaching philosophy was utilizing different types of learning centers where children can learn through play in small groups, pairs, or by themselves. Learning centers are defined interest areas that provide children with choices of exploratory hand-on activities and materials to address specific educational goals. She incorporated teacher-guided play that focused on subjects, like literacy, math, science, social studies, and engineering; and, child-initiated play through interest centers, such as, blocks, manipulatives, library, and, a large sunken table that could hold open-ended sensory materials, like water or sand. On a regular basis, Ellen took her students to play with the water table and ride tricycles in the large outdoor space that belongs to the preschool special education classroom.

During teacher-guided learning centers, which often focused on literacy or math skill development, children used materials and completed specific activities with Ellen's initial guidance, then they rotated through certain centers to practice skills and strategies. As most of the children practiced their skills in the

centers, Ellen often worked with a small group of children on a targeted skill building lesson. For her literacy centers, Ellen adopted the *Daily 5*, which is a framework that divides reading and writing experiences into five centers—Read to Self, Work on Writing, Read to Someone, Listen to Reading, and Word Work. She reported,

For literacy centers, we try to incorporate the *Daily 5*. There are different literacy activities for the children to choose from. You can choose to do magnetic letters. You can choose to practice writing the words. You can practice sorting the alphabet, things like that, or you can go to building the word with the LEGO. I have different things like that, that [have] to do with writing and reading. Then [in] math, I have a lot of manipulatives, and games that the children use to reinforce their learning and problem solve.

In the afternoons, Ellen planned child-initiated play in different learning centers in the classroom. Child-initiated playtime allowed children to self-select who they would play with and what learning centers they would play in. Learning centers were organized by the types of hands-on educational materials and activities, such as, blocks, manipulatives, art, books, dress-up, puzzles, board games, and puppets. Ellen would set up the conditions to support these learning centers, then she stepped back and observed. She intervened only to provide materials, ask specific questions to assist learning, or settle disputes. She elaborated,

I think the play that helps them with their social skills is that center time at the end of the day, where they have free choice. They can go to the home center, they can role play in different areas, they can do dress up, or they can go to the puppet center. That is their time when they will play games or build with blocks, and that is when they are interacting and having conversations, trying to solve their problems, if there are any, [and] learning how to share and take turns. I think this type of play is so important.

Connections between teacher-guided learning and child-initiated play.

Ellen provided an illustration of how she involved children in role-playing as a teaching strategy to familiarize them with a teacher-guided curriculum unit about “buyers and sellers”. She explained,

[It] depends on the unit. In the third quarter, we did our “buyers and sellers unit”, so they knew we were counting money. . . . Because [within the thematic unit] we were role playing, [where] they had to be the buyers and the others had to be the sellers. They had to make something to sell. Half of the kids had to be the buyers and we told them these are the stores, go and shop. We role played a lot.

Later in the afternoon during free-choice centers, Ellen noted that some of the girls in her classroom immediately applied and represented their emerging thinking about the roles of “buyers and sellers” with relevant objects in their child-initiated socio-dramatic play. She shared,

So I had a lot of recycle[d] junk in the back [of the classroom] because they were building stuff during center time. So I saw the girls go get food containers and the play money from our math centers. Then the girls asked, ‘Can we use the money to make a store?’. . . . So automatically, they used the cash register. There was a cash register all year there. Only after we did the ‘buyers and sellers’ did they use it.

By allowing her students to use socio-dramatic play to enhance their learning about “buyers and sellers”, Ellen discovered that they not only made immediate connections to their prior knowledge but also made connections between school and home. One example, was when one of her students decided to bring empty food containers from her home to play in the home center in the classroom and continue the “buyers and sellers” theme. Ellen elaborated,

One of my student’s grandma said that her granddaughter wanted to wash food containers really good because she had to bring them to school. The grandma asked if I told the children to bring in

food containers. I said, 'No, I did not ask them to bring containers to school.' My student brought the containers to put them in the home center.

When children were engaged in child-initiated play, Ellen used this time to observe and listen to children's conversations, then if appropriate, she extended their play using questions or comments, and assessed how they were reaching learning goals in the content areas. She acknowledged,

I think when they are playing, my job is to let them go and play. I walk around to make observations and to listen to the conversations that are going on. Then I would say 'Hey that is a good idea. Did you hear what he just said?' When that kind of play is happening and when they learn to collaborate in their play, it helps when I ask them to collaborate in a content area. For example, when they have a task to do, it is easier to transition them to work together. They are learning that they are working together when they are playing and it's important to work together in content areas as well. They have try to solve their problem and work together.

STEM's engineering design process for real life.

Ellen discovered that STEM's engineering design process, where children had to ask questions and define simple real-life problems, develop and use models, and, analyze and interpret data, encouraged valuable life skills. She maintained,

I'm always try[ing] to relate the engineering process to their [students'] daily lives. People are always doing the engineering process to making things better. 'Are you going to cry if something doesn't work? No. Just keep on trying.' I don't want the children to always feel they need to have the end result and get it perfect. It is the process that is important and we should praise the process they went through. If something didn't work, they have a chance to improve it and they will learn perseverance. That's what we want children to do in their daily lives.

Grade-level professional learning community.

Ellen reported that one of the main reasons behind the play-based approach in kindergarten at her school, was because the principal who started the school understood that play had a unique and essential role in his kindergarten students' lives. Subsequently, he hired Ellen and other kindergarten teachers who had taken specialized courses in ECE in their undergraduate degrees, then invited their input to establish the learning environment of the kindergarten classrooms with the appropriate play equipment and materials.

Ellen affirmed,

We were allowed to choose what we wanted to open up [the school] with. We chose things that we felt were important. So we got the home center, puppet center, bean table, the sand and water table. We had a say in what we wanted. We were supported to buy all things that come along with those centers. The tables, and chairs, the food, the puppets, the dress up clothes. All of these cost a lot of money so we were very fortunate to be able to choose what we wanted.

Ellen knew that having other kindergarten teachers with similar beliefs about play and DAP made teaching easier. She confirmed, "If I was the only one playing and everyone else was not, then it would be kind of hard."

With their common educational backgrounds, Ellen and her colleagues shared a unified child-centered philosophy and developed into an effective professional learning community where they respected divergent child-centered instructional strategies that teachers could use for their individual classrooms. She acknowledged,

Our philosophies are very similar. It is child-centered. Whatever is best for your children, go for it. There is a level of trust. Who am I to say it will not work for someone else's class. Everyone respects what we all choose to do. We all do what we feel is best for our class. We are not offended if we do things differently. But we all teach the same standards and curriculum. Rarely do you find

a group of teachers who respect each other like that. It's like a sharing pot. We share our ideas. Each teacher decides if it will work for their class. If you don't do my ideas, I will not be upset. So there is an understanding 'Whatever you think is best for your kids, go do it, we support each other.

Even with staffing changes in the grade-level, this kindergarten team has remained a strong professional learning community that focuses on DAP. She elaborated,

We have one to two new teachers this year. Last year we had a new one. [The] majority of us have been together, about six or seven years . . . I have been fortunate to be with good people, who live the six Pillars and have respect for each other. No one tries to be better than anyone. We are all good teachers doing what we feel is best for our children. We advocate for our children so that we are making sure our curriculum is child centered and developmentally appropriate. Trusting and respecting each other is key when we do learning communities.

Ellen found it was valuable that her grade-level developed a set of shared integrated unit plans for their kindergarten curriculum. Ellen emphasized, "This is important. I wish this for all teachers."

School administration values teachers' play philosophy.

Ellen acknowledged that both her first principal and current principal valued and welcomed the playful learning philosophy of the kindergarten teachers. Having this continuous leadership support has been vital to the sustainability of their play-based classrooms. Ellen affirmed,

We have support from administration to do play. They know it's important. They trust our judgment. We believe it is important. When our administration says, we have to do RTI [Response to Intervention], we tell them we cannot lessen center time any more, these kids need to play.

The level of respect from their school leadership continued to be high when it came to allowing teachers to choose their language arts curriculum. After much dialogue with the teachers of the school, the

kindergarten teachers were allowed to keep their own teacher-designed curriculum and use the new scripted literacy curriculum as a resource. Ellen explained,

Our school is using *Wonders* as a resource, as a strong resource . . . There were some teachers [at her school] that did a lot of *Wonders* and some teachers that did pockets of *Wonders*, and when they were looking at test scores, either way there were kids who did well and kids who did average. Our curriculum coordinators said today, they want us to continue to add our good teaching in each unit.

After piloting the state mathematics curriculum, called *Stepping Stones*, Ellen and her grade-level teachers, uncovered that there were not enough engaging learning activities, like the former math curriculum they had previously been using. She continued,

Stepping Stones is little harder for me because it is not as hands-on as our other math program. We had *Investigations* before, which used a lot of manipulatives and games to reinforce the concepts. *Stepping Stones* is not as rich with those games and manipulatives. We are trying to balance out *Stepping Stones* by adding more from *Investigations* to reinforce and introduce what we are teaching. It has been a challenge for us. We loved *Investigations*.

Ellen explained that to teach kindergarteners math concepts, children need a lot of different concrete firsthand materials to touch, play, and count with. She said, “For math, we use a lot of manipulatives. The children have to solve their problems and reinforce their learning through using manipulatives.” She also added that kindergarten teachers were in conversation with their school leadership about which math curriculum would best meet their children’s learning needs.

Balancing developmentally appropriate practice and school expectations.

Ellen expressed that there were several areas of tension in balancing her beliefs about DAP, including playful learning strategies, with public school expectations and demands.

First, one tension between her DAP beliefs and school expectations was fitting in all the curricular content into the school year, which impacted the amount of time children had for child-initiated play. At the beginning of the year, Ellen and her grade-level colleagues agreed to schedule 45 minutes of free-choice play time every week day, except Wednesday. Unfortunately, they found that it was difficult to consistently maintain this schedule in the second semester. Ellen explained,

In the beginning of the year, it is easier [to incorporate child-initiated play] because the content is not so strong but at the end of year it gets harder, because we have to get so much more done. Our science units, and our social studies units are bigger. So we don't have the time. It is a time crunch. We have to get things done.

Secondly, with Common Core's priority on yearly language arts and mathematics goals, Ellen expressed that this emphasis took the focus off the child's whole development, which used to be addressed when there was more time for child-initiated play experiences. She elaborated,

Because the academic part is so strong it does take away from the playtime. The playtime that we use to have a lot of in the first semester. We had more time to play. Now we don't have as much free time. The time is taken up trying to teach them all [that] the Common Core is asking.

Ellen was concerned about how decreasing the time for play would affect her children's social-emotional skills. Therefore, she cherished the first half of the year when children could socialize with each other. She said, "So the first semester is a little more playtime, routines and building relationships with each other. [That] is important because they have limited center time to socialize [in the second half of the school year]."

Thirdly, because Ellen had previously taught in schools in lower socio-economic neighborhoods, another tension for her was whether children's social and cultural contexts were taken into consideration in this climate of standards and accountability. She emphasized,

For us, it is first, we don't know how standard it [the expectation] is from school to school. Our kids are more knowledgeable than kids [in] other areas because the majority of them have attended preschools . . . Our kids are capable, pretty much the majority of them meet the standards. There are some who have a harder time [meeting the] standard. But I think, wow, if I were anywhere else, how would they [kindergarteners] do it. Because it [Common Core is] asking for them to do so much.

Fourthly, Ellen felt conflicted by the pushdown effect of a specific CCSS-M standard. She argued,

It is asking them to do a lot more, even in the math. To be able to count to 100. It is a lot . . . and it is just a lot more than what they had to do before. There is pressure more on the academic [end].

However, despite Ellen's conflict with this standard, she accepted the Common Core as part of her job as a teacher in a standards-based public school. Thus, she knew she had to teach counting to 100 in a way that would be engaging for her children, rather than through more didactic, highly structured approaches. She explained, "But yet, to get them there, they have to do it through some kind of movement or some kind of stimulating way, to make it fun and get them there."

Finally, Ellen was asked how she would sustain play and the joy of learning in her classroom. She concluded,

That [learning through play] is my passion. It is going to be a part of me until I leave teaching. I believe in it. My philosophy has embedded everything that I have done and I have made my philosophy drive what I teach all these years. So it is natural.

Closing summary.

This within case analysis of Ellen demonstrated how she incorporated both child-initiated play and teacher-guided experiential learning in her teacher-designed curriculum. She articulated that this was possible because of her strong play-based philosophy that was equally shared with her grade-level

professional learning community, the support of her principal since the school's inception, and the positive feedback she received as she observed her kindergarteners engaged in rich playful learning. At the same time, Ellen did not mask the tensions she had experienced between balancing DAP and the expectations of the current public school system, especially in having to conduct more child assessments in the second half of the school year, pushing her to lessen the time for child-initiated play.

Sheri: Within-Case Analysis

The major themes in this within-case analysis of Sheri cover: 1) kindergarten as a child's first formal school experience; 2) approaches to playful learning; 3) the impact of scripted curriculum on child-initiated play; 4) school administration's emerging awareness of play; and, 5) time and creativity for playful learning.

Kindergarten as a child's first school program.

Sheri estimated that about 75% of the incoming kindergartners in her school did not attend a preschool program prior to entering kindergarten. Because of this, one of her goals was for kindergarten to be a bridge between home and school and help children become familiar with the school's expectations.

Sheri elaborated,

For our group, because of the lack of formalized education, one of the things I tell parents, [is that] this [kindergarten] is a first formalized education program. So they are getting into the habit of [understanding] what is school about. 'What is expected of me when I start coming to school?'

Sheri felt that the kindergarten year was a time when children learned how to self-regulate, become more independent, and connect to a school community. She stated,

A lot of the goals of independence [means] independence in your learning, in your self-management, how you negotiate with others, how you cooperate, how you survive in society, how to be a community member, [which is] at the base of everything.

Due to the reality that most parents of her students worked two or three jobs, it was important for Sheri to promote family partnerships in kindergarten. Thus, she discovered a few ways to help families feel they were part of the school community. For example, over half of the parents and students in her classroom came to the school's Saturday campus beautification day to plant a class garden. During this event, parents and children learned how to start a garden and through the year children took care of the garden. Often parents and students exclaimed, "Look at our garden!" This project highlighted the importance of family partnerships.

Different playful learning approaches.

Sheri stated that play was something children enjoy doing and can instinctively do. She said, "It is pivotal to give them these [learning] experiences and I feel the best way and least restrictive way is to have what they can do naturally, which is play. That is not something we have to teach them." With this belief, Sheri used teacher-guided learning stations, playfulness as a learning modality, hands-on STEM, and child-initiated play stations.

Teacher-guided learning stations.

Before the second quarter of the school year, Sheri established a daily schedule where children rotated through different teacher-planned learning stations. More specifically, she offered experiential literacy focused activities to choose from, such as, independent reading; matching magnet letters to build sight words on a magnet board; playing literacy games on the iPad; using small objects to form letters; and, drawing what children observed in their classroom.

At one of the literacy stations, Sheri displayed a playful learning activity which related to the mandated scripted reading curriculum her school adopted. This lesson was a puzzle game that incorporated concepts from the children's book, *Chicka Chicka Boom Boom* by Bill Martin Jr and John Archambault.

The story, which was written in a rhythmic chant, was about alphabet letters climbing a coconut tree. Sheri reported,

“Like we did with *Chicka Chicka Boom Boom*, we had to figure out the size of the letters to fit in the tree. It is kind of playful because they are moving puzzle pieces around, but it is going with concepts, making the connections. Can they [letters of the alphabet] fit in the tree? So certain stations lend [themselves] to the [scripted reading] curriculum.”

During the school year, Sheri welcomed parent volunteers and often encouraged them to support small groups of children during learning centers. She explained the purpose of the learning stations to the parent volunteers and reviewed how to engage children in learning the concepts of each station. Sheri later discovered that sometimes the parent volunteers enjoyed playing the games or activities in the learning stations. She commented,

“The parents played more than the kids. They were getting hooked on it and it was a simple game and they were getting hooked on it. It was kind of interesting that they got hooked on it because that was good because [then] they can play with their kids [outside of school].”

Play as a learning modality.

Sheri explained that learning modalities, such as visual, auditory, kinesthetic and tactical modalities, were the sensory pathways through which children gave, received and stored information. She described how she incorporated play as a learning modality in her curriculum unit about the Gingerbread Man story. She continued, “Like for different modalities, when they [children] start doing dramatic play using stick puppets with the Gingerbread Man, they get absorbed in the story. And they come up with the greatest stories.” Sheri discovered that when she applied a playful learning approach to teach lessons, her children were more inquisitive. She said, “Because of the playful learning approach in this unit, children asked ‘What happened to it? What if there was a snake in the story? What would the snake do?’ They were asking

questions that were more thought provoking.” Sheri also found that when her students were engaged in experiential learning, they could recall specific concepts later in the school year. She shared,

I notice the lessons I do through play become more ingrained in kids. I had kids in the fourth quarter drawing the gingerbread man. [One student said] ‘I see it [gingerbread man], I went to the mall and I saw him.’

In addition, the Gingerbread Man curriculum unit, had a parent-child workshop component where each parent-child pair made a mini-book that focused on the sequence of the story. Sheri shared, “The parent helped the child. In the morning, we [teachers] do the cookie and they [parents-children] do patterning because they do the mini-book.”

Teacher-guided hands-on engineering activity.

During the prior school year, Sheri decided that she wanted her students to experience how to solve an engineering problem that related to kindergarten STEM standards. Therefore, Sheri searched the internet and found a lesson that kindergarten children could do. She then gathered the instructions, materials and facilitated a guided problem-solving activity where children had to work in teams to build a tower with paper cups to balance a book. Sheri continued,

I told the kids I have these cups, but it is the only material I have. But I need to find a way to put this book up. The kids were given the cups and [told] all the cups in this bag had to be used. The kids’ conversations that came up [included] ‘You gotta be gentle. You knocked it down.’ They had to negotiate among themselves. It started as [a] teacher driven [activity] with every child having to do it.

As Sheri’s students continued to ask to play with this hands-on engineering activity, she asked them if they wanted this activity to be in one of their child-initiated play stations. Her kindergartners’ eager and positive

affirmations led Sheri to assemble more individual kits of this engineering activity for one of the play stations. She clarified,

I asked ‘Does anyone want to do this [engineering activity] as a free choice station?’ They were excited and every kid wanted it. I had to downscale it, so I had to get bathroom cups, so everyone could get a kit, and every child could do an independent one and then I asked, ‘How many [kids] should be in one station?’ [One child said] ‘Maybe just three.’ I said, ‘That was good.’

Child-initiated play stations.

Sheri explained that during the afternoon child-initiated play stations, children were engaged in activities, such as building with blocks, putting together puzzles, playing with small vehicles in the town box center, and pretending to be a member of a family in the kitchen center. During these play stations, she observed how children played with one another and learned many social skills, like how to communicate and negotiation with one another, and how to understand community values, such as, fairness. She elaborated,

Play is taken for granted, the importance of play. Many social values are taught in there, community values are taught in there. When I think about play, and just allowing the children the free choice for play, the kids are making decisions [and learning] to negotiate among themselves.

In addition to social skills and community values, Sheri knew that playful learning helped children use their cognitive skills. She contended, “Play opens children’s imagination, encourages new ideas, builds teamwork and partnerships between children, [who] design and construct materials.”

Sheri acknowledged how play created an open-ended space for children’s shared goals. She stated, “[There are] more commonalities or common ground when children play. Play is free of stereotypes and [is] gender neutral. Play is a modality, an open atmosphere to get all that in.” Finally, Sheri reported that sometimes children needed to play with their peers, without the interference of the teacher. She explained,

“Whether it is the play [or pretend] community or the community at large, I feel they [children] need that time at least to explore that [play] without [a] teacher hovering.” Sheri found that when her students had opportunities to play cooperatively with one another in her classroom, they learned such values as fairness, respect, and speaking up for one’s rights and the rights of others.

How scripted curriculum and assessments affect time for play.

Sheri described that her school was mandated to implement two scripted curricula and related assessments to meet the Common Core State Standards (CCSS). Both the reading curricula and the mathematics curricula were being followed in a lockstep fashion. Sheri shared that having to follow the scripted curricula with fidelity, left little time and flexibility in the school day for child-initiated play stations, art, and other subjects. Because completing academic work was a priority, Sheri usually allowed her children to earn 15 minutes for child-initiated play stations. She maintained,

Usually when time permits, I try to put it in my schedule at the end, have 15 minutes at the end of the day. Have the kids earn 15 minutes. If you do your work [you get] 15 minutes. [It] is all free choice. Then I let them vote on what stations [they have access to]. I try to do this daily.

In order to teach her students, the value of using time wisely, Sheri told her children that an additional 5-10 minutes would be added to their time in afternoon play stations, if they remained focused on and completed their selected academic work.

Sheri was conflicted when the assessments that accompanied the mandated curricula took more time out of the school year to be completed than she and other teachers in her school expected. She elaborated,

We had to do [an] assessment on the last day of school. The kids were cleaning up, but we had to do another reading test . . . The programs [assessments], that we are suppose[d] to do, we are mandated to use [them] to support the curriculum. It is where there is so much stifling. They are

telling you to use it [curriculum and assessments] with fidelity and wonderful and beautiful things will happen. But do we have time? It becomes a problem to do it from stem to stern.

Sheri and the other kindergarten teacher at her school agreed that there seemed to be an overemphasis on assessments with this new curriculum, which hampered their role as kindergarten teachers. She reflected,

In my personal experience with it [assessments], I feel it stifles the teacher. Especially more so now than ever because we are so assessment driven. Everything needs to happen because we need to assess. This past year, my partner was a new teacher who just graduated. We were so heavy on assessments. One of her questions she had asked me [about that I] did not have a good answer [to was], ‘Do we ever teach?’ It is because every week we had an assessment of some kind.

Subsequently, after a couple of years of experience with the scripted curriculum and related assessments, Sheri and the rest of the teachers of her school met before the end of the 2015-2016 school year to evaluate the implementation of the curriculum and individual assessments. Sheri continued,

We had a school-wide pow wow back in April. ‘Where is your grade level now? How far along in the program [scripted curriculum] will you get by the end of the year?’ [We are] almost there. Every grade level said, if we squeeze [in] two lessons a day we will probably finish the program [earlier].

Because of a school-wide teachers’ institute this past summer, Sheri and the rest of the teachers agreed on how to implement the scripted curriculum and assessment with expediency. This proposal will enable the teachers to finish their assessments earlier in the 2016-2017 school year.

School principal’s evolving awareness about children’s play.

Sheri shared that an initial challenge for her was the limited understanding her principal had about how children learn through play. She explained that her principal came to her school five years ago with secondary education experience. When her principal first visited her kindergarten classroom, Sheri explained, “At the beginning, she [school principal] was very hesitant about [play]. [And she asked], ‘Why

aren't they doing their reading right now? What is going on here?'" However, over time, the principal became better informed about playful learning as a teaching strategy. Sheri continued, "So she [principal] has had to kind of learn [that children learn through play] and we [kindergarten teachers] have had to teach her these are the reasons why we do this."

Another person who influenced the school principal about how children learn through play was the school's new curriculum coordinator. One day the principal and curriculum coordinator visited Sheri's classroom as children were playing in different stations. Sheri elaborated,

And we had play stations at that time. The kids were playing, and it was supposed to be during our math time. But she [principal] was cognizant and took the time to ask the curriculum coach, 'What is going on here?' And she [the principal] said, 'Look at what they are doing?' Then the curriculum coach said, 'It looks like they are doing play, but they are playing with blocks, and what they are doing [is] they are figuring out what is tall, taller, tallest in these little things. They are playing but they are learning the skills and they are learning all these other things.'

Eventually, in her future visits to Sheri's classroom, the principal began to feel more comfortable with asking the children to describe what they were doing while playing. Sheri shared,

And so now when she [principal] comes in, she sees what they are doing, and another thing, she takes the time now to find out what is happening with the kids. [Principal says] 'Oh, what are you doing?' From her questions to the kids, she is finding out what is happening with the kids and seeing the social skills and things.

Sheri explained that one day her principal gave her approval for 15 minutes of child-initiated play stations in her classroom. She elaborated,

Then when she [the principal] came back around, she asked the kids [what they were doing], [and one child] who said, 'I have the tallest tower and his one is too short.' Then when they [the children]

were talking to her, she said, ‘Oh they are learning.’ It was kind [of] more eye-opening. . . She finally realized, and said [to me], ‘It is okay [that] you have this 15 minutes down here for free choice and things like that.’

From “sneaking in” playful learning to being “creative” with playful learning.

Sheri acknowledged that over the years, practices in kindergarten, like playtime, art, and naptime, had been eliminated or reduced in the daily schedule. She reflected,

In the beginning, a lot of admin [istration] thought [of] taking away stuff in kindergarten. They take away playtime. They [administration] takes away naptime. The things we thought were important in K[indergarten], like the arts. In elementary school, I did art and you get to do clay and paint. Now they [kindergartners] don’t have that.

Sheri felt that taking away some of these practices was due to the lack of understanding about how kindergarteners learn holistically, rather than just cognitively. These changes made her concerned about how young children were being hurried. Sheri declared, “All the standards they are shoving down and making children grow up faster basically, without the skills they might need to become responsible community contributors.”

“Sneak in” social learning through play in cognitive times.

Sheri believed that through playful learning kindergarteners socialize, collaborate, and develop their cognitive and language skills that enable them to be successful learners in school. Although her principal was taking steps to understand how children learn through play, Sheri felt many leaders in administration did not understand the needs of children and how play can be used as a teaching strategy. For Sheri, the idea of “sneaking in” social skill building through play was a more effective practice than teaching through a formalized lesson. She emphasized,

A lot of times, when we look at the children, a lot of the administration and above, they forget that kids don't know how to socialize, and [how] play is one way we can sneak it [social skills] in without having to teach formal lessons. That is one thing, I think our administration takes for granted that our kids don't come to us ready to [be] sitting down and ready to learn, ready to collaborate. That [socialization] is a skill we are teaching, and it is through play that we can teach it more comfortably. That is one thing they forget. We have to teach that [socialization].

For Sheri and her grade-level colleague, to stay true to their beliefs about the important role of play in children's learning, they revealed they had to "sneak in" play in this current climate of heavier academics in kindergarten. She asserted,

I have to say that at the beginning, we had to sneak in play. It was naughty. 'Don't do it because you need to do a standardized lesson when I [principal] walk by.' All of us have these walk-throughs and they [school leadership] are taking notes, [they ask] 'Are you teaching a lesson right now?' And then they ask the kids, 'What are you learning right now?' Sometimes even the administrative staff doesn't understand what we [kindergarten teachers] are doing. We sometimes have to sneak things in. There is a big push [for more academics]. You [the teacher] need to do curriculum all the time.

Currently, Sheri explained how she has been in the process of creatively moving from "sneaking in" play to becoming more intentional in planning and implementing playful learning activities during afternoon play stations. She contended, 'I have to be really creative with my time. [I] had to change free play stations to learning stations, where I would embed myself and invite children to participate in a fun, hands on activity.'

Sheri discovered that children were drawn to a play station when she was located in the station and telling them how much fun they would have with the learning tasks. She explained,

I had to make my stations . . . some learning stations that everyone should visit, but I'm usually the one embedded in that station, 'Oh my gosh, this is so much fun. Let's go and do this' and this draws the kids, because they think, 'Oh what is going on over there, there is a party going on over there in that station.' So that is the one way I'm thinking because we are forced to mask a station, you are learning things and it gets the children enticed to come.

Playful learning an outlet for creativity.

Sheri believed that through playful learning, children learn to take risks, make mistakes and be inventive. She elaborated,

Play is one of the ways they [children] can get that [creativity] going, where it is not a dangerous environment, where they are free to explore ways to get to the answer to the same problem, but do not need to follow the same way as everyone else. The biggest thing is the innovation.

In comparison, Sheri cautioned that when children are not given opportunities to be creative they can become reluctant with taking risks and dependent on others. She said "If you [have] closed off their minds, then you build children who are just carbon copies, who don't know what to do unless you are holding their hand." Rather, Sheri felt that children need to engage with exploratory play, like scientists, using trial and error to find solutions to problems. She confirmed,

Scientists do all different ways to find formulas. We want to build that knowledge that it [play] is okay to try. Even if it doesn't work. Try it out. Maybe it would work. That is where play comes in.

This gives them the freedom to get it wrong, to try it out.

Sheri knew that kindergarten cannot just be about paper and pencil learning but needs to be a joyful engaging school experience. She found that when she allowed children to experience engaging play stations, they were able to see learning as something fun and school as meaningful. She maintained,

We have to give them stations. Let them play and not just paper, pencil, and book, book, book . . .

Stations have been helping the culture of the class. We want school to be a good place, a fun place. I can see children thinking that school is boring.

Sheri discovered that as a teacher, being able to invent and re-invent new playful learning lesson plans was an outlet for her own creativity. She concluded,

And I thought to myself, as we teach and things like that, curriculum gets boring, to be honest. So if we don't jazz it up, why would the kids get excited? So this forces me to [say] 'What is the better way for me to teach that'. 'What is the better way to do the STEM lesson?' When I'm having fun, the kids will have fun. Curriculum is so cut and dry, it is boring. It is like a slice of bread. And then when you put jelly on it and you put all kinds of stuff on it, it is more fun. That is where my thinking is. Make learning fun. Then they won't know they are learning all day.

Consequently, Sheri discovered that when she allowed herself to be creative with her teaching and embed playfulness, her students also enjoyed learning.

Closing summary.

This within-case analysis of Sheri presented how she valued play, was taking incremental steps to engage children in play, and add more playfulness to her instruction, despite external and internal challenges she faced. One challenge was having to follow mandated prescribed commercial curricula in a lockstep manner which enabled her to include some teacher-guided experiential learning but left little time at the end of the day for child-initiated play. A second challenge was the limited understanding her school principal and complex area leadership had about how children can learn through play in addressing different areas of the curriculum. A third challenge was her own attitude of child-initiated play as something children earned after completion of their academic work rather than play as the work of children.

Kira: Within-Case Analysis

The major themes in this within-case analysis of Kira cover: 1) kindergarten as a time for playful learning experiences; 2) kid-watching and brain research; 3) playful learning through STEM; 4) using persistence and creativity to implement playful learning; 5) different playful learning approaches through the day; 6) concerns with specific CCSS standards; and, 7) ECE mentors encourage playful learning pedagogy.

Kindergarten: A time for playful learning.

Kira believed that the purpose of kindergarten was to transition and prepare children for their formal educational pathway. She declared, “Kindergarten is the very first year of their long public school journey, which is 13 years. It is a bridge between preschool and first grade.”

Although kindergarten was considered the link between preschool and first grade, Kira knew that more than half of the children who enrolled as kindergartners at her school had no formal preschool experience. Therefore, this underscored that her main goal for kindergarten was to provide all children with enriching playful learning experiences that would motivate and engage them as learners during this important foundational year. Kira stated, “Kids [in this community] do not have a lot of experiences, rich experiences prior to kindergarten. I offer many playful experiences. When children are excited and not bored, they are engaged.”

Kid-watching and brain development.

Kira’s interest in play and its impact on the development of young children stemmed from her own childhood memories of hours of rich play, which resurfaced when she took on the role as a family child care provider in caring for very young children in her home. While keenly observing them on a daily basis, her fascination with how young children develop and learn through play began to grow. She expounded,

Maybe because I watch kids all the time. And when I do, I wonder why they do things. I wanted to know why [a] kid [would] drop something from [the] high chair, keep dropping things from the high chair. They do it once but then they do it again, and again, and again. It was amazing to me.

Next, Kira's interest in studying young children led her to seek more information about neuroscience and the role and value of play in strengthening the activity of brains. She acknowledged,

When I started reading and study[ing] about brain research, I found it very, very helpful. I learned how play can make children smart. That was one of the major breakthroughs for me, that play is important, not just socially, emotionally, but cognitively. They can be smart.

Kira understood that the brain architecture, before birth, was built by the billions of neural connections being wired across different regions of the brain, which continued to be refined through stimulating interactions when kindergarteners were playing. She affirmed, "Play activates synaptic connections in the brains. When these synaptic connections are taking place, you [kindergarteners] are getting smarter. Some say we [kindergartners] cannot play all day, but I say we can play all day." Kira found that her role as a teacher was to facilitate and support children's play, often without them being aware of it, and enable them to direct their own learning through play. She continued,

The way I teach is playful. But playful means they have to be engaged. Kids have to feel they are making decisions. Not [that] I tell them what to do. I trick them. I am very good with them. 'Oh my gosh, how did you figure that out?!' They feel they have a voice. They decide what to do and how they can learn it. But really I'm deciding and I'm tricking them to really say it. They are very self-directed. They are never quiet.

Children's role in play.

First, Kira acknowledged that play was a fun and natural biological function in children. She said, "Play is something you don't have to force them to do. They just do [it]."

Second, Kira observed that today many children do not have engaging play opportunities at home, which was unlike her own childhood. She stated, “Today children do not have access to the carefree rich play experiences [like] I had when I was growing up. [Therefore,] when they come to school, they go crazy with excitement [with play opportunities].” With many of her incoming kindergarteners not having access to meaningful play experiences, Kira started each year with a class lesson about the serious nature of educational play and the difference between focused play versus aimless play. Kira explained,

We make a huge lesson about play [with the students]. When we do, we laugh. [I say] ‘You can’t use the word play, but what is play?’ They [children] really think hard about what is play. Play is [a] big common topic. [I instill a] common knowledge about play so kids will see play in a serious way. Not just goofing around, [because] that is not play.

Third, Kira clarified how she intentionally taught children to be decision-makers through playful learning. She continued, “The way I teach is playful [learning], but playful means they [children] have to be engaged. Kids have to feel they are making decisions.” Moreover, Kira shared that for her students to be fully engaged in play, children need to speak up and direct their learning in play. She clarified,

Then they have a voice and feel they are making decisions about what to do and how they can learn it. My classroom tends to be noisy because everyone is engaged and doing different things at the same time. They are becoming self-direct learners.

Finally, Kira shared that play was universal and cross-cultural as she explained an observation she had of two young boys from different cultural and language backgrounds at the airport. Despite these barriers, the boys enjoyed sharing and playing a video game in the waiting area. Kira declared, “Children from different languages, from different cultures, complete strangers, can play together. Play is something very, very powerful.”

Creating positive social-emotional climate through play.

To implement a play-based approach, it was vital for Kira to establish a nurturing classroom climate with a focus on positive relationships. She maintained, “I created a safe social-emotional climate where children help one another and encourage and celebrate the successes of each other. I have a close relationship with my students.” This supportive environment empowered children to take risks and practice affirmative behaviors towards one another in their play. She elaborated,

There is no wrong in play and you don’t have to be afraid of play. Play is very self-led and risk taking in a very safe way . . . When students are playing they feel safe and usually don’t make mistakes. Play also creates a space for children to learn and show kindness to one another.

For instance, Kira taught children the importance of playing with one another and to use their growing empathy skills. In speaking to her students, she discussed,

‘What will you [student] do when someone is playing by [her or him] self?’ We talk[ed] about that. After a while, they [students] say, ‘We are going to play with everybody. We are not going to kick and punch.’ They [students] will tell me because they know the brain needs to feel safe. This is what they do.

Kira asserted that when children enjoy playing with each other they are motivated to keep learning. She stated, “‘Play is fun. When you [student] play with somebody it is fun. You don’t play by yourself.’

Engaging. Curiosity is fun. [I] give them a lot of fun learning opportunities so they want to learn more.”

Families’ role in learning about brain development and play.

In the first parent meeting of every school year, Kira informed her families about brain development research and how this influenced her philosophy on playful learning. She emphasized,

I teach them [families] about [what] the brain research says, that 92 % of the kids’ brains are already developed by age five. So they [families] say ‘What?’ And they are in shock. [Then I say], ‘But

there is hope, because there is something we can do.’ I say, ‘We[’ve] got to make [brain] connections.’ And [parents ask], ‘How do you do that?’ [I say], ‘We[’ve] got to play.’

Then Kira shared what play is and explained how playful learning through their Science Technology Engineering and Mathematics (STEM) education helped children reach 21st century goals of 5 C’s or curiosity, collaboration, creativity, critical thinking, and communication. Kira acknowledged, “I use 5 Cs of STEM playfully to develop children’s brain while we can. That is how I start all my [family] meetings. That is what I believe.” Furthermore, she clarified with families that there were many play advocates. Kira said, “I’m not just saying it. This is not just me [promoting playful learning]. Lots of smart people, they say I’m right. That is actually true. Nobody will argue because that [learning through play] is a fact.” Finally, her parents accepted what she shared with them. Kira commented, “Because of that, they [families] say okay. So that is how I start [my school year]. Nobody questions it.”

Incorporating play through kindergarten STEM.

Several years ago Kira joined a state-wide DOE STEM workgroup because she found that there were not enough hands-on learning STEM resources for the prekindergarten through primary grades. She explained,

But in science, especially STEM, kindergarten or pre-k are ignored. Even first grade, second grade. It starts from fourth grade. I really wanted them to know that we [lower grade teachers] are important too. And if you don’t tell us what to do, if you don’t empower us and give us ideas, when you don’t help us, when they [children] get to fourth grade, they will not be successful engineers, mathematicians, and scientists. It all starts from us. I wanted to make sure they [the state-wide DOE STEM workgroup] hear. Then I wrote a mini-application with an essay and I got accepted [on the workgroup].

Kira discovered that playful learning through STEM can positively impact the development of cognitive skills in young children and affect their academic scores in a positive way. She elaborated, [Some people explain that] the only reason [for my children’s positive scores] is because we use the same curriculum. But the only way I can explain [the positive data] [is] . . . because it [playful learning] is being supported with the data. That [data] is the reason I am allowed to offer play in my kindergarten classroom.

Kira explained how the scores were attributed to interactive playful STEM education that she had been doing with her students and their families.

School year 2014-2015.

Because of the success Kira found her students were having with STEM education, she decided to write mini-grants to fund a STEM initiative for her kindergarten children and families in the 2014-2015 school year. The purpose of this initiative was to purchase resources to conduct parent-child STEM workshops and to do classroom STEM activities. These workshops and activities incorporated exploratory play in the process, and promoted 21st century learner skills. She reported,

It is pretty awesome because STEM covers the 5 C’s. It is very critical and through STEM you [children] will be able to learn how to read and be able to get along with others. You [children] are able to do math and technology, and that is how I’m trying to sell it to my grade-level [teachers], and with my families.

Through the funding, Kira was able to order sets of LEGO materials which addressed STEM principles for her kindergartners. Kira stated that when children constructed with LEGO they learned such skills as, “Spatial thinking and thinking in three dimensions, to problem-solve, plan, collaborate, think critically, and to strengthen their fine motor skills, imagination, eye-hand coordination and focus.”

Once Kira's students were familiarized with their new sets of LEGO, she encouraged them to take 40 minutes to collaborate with one another to construct a vehicle with LEGO. They progressed from task to task to get to their end product. She elaborated,

[The] rule was to build something with a partner while you are talking together. Each time they play with LEGO, children are given a small task; after several times, then they are given additional tools to make a vehicle with wheels. Next push it [the vehicle] then add a balloon to race their vehicles.

School year 2015-2016.

After a successful first year of doing STEM in 2014-2015, Kira then wrote additional mini-grants to extend the funding to include the other six kindergarten teachers, their students and families in the 2015-2016 school year. She reported that besides sponsoring quarterly family and child workshops for the kindergarten classrooms at her school, she was excited to distribute STEM materials, like wooden marble runs, and STEM lessons to the rest of the kindergarten teachers and their individual classrooms. She affirmed, "This year, I'm making a way for other grade-level colleagues as we learn about STEM together. I want K teachers, especially new teachers to not be afraid to have kids play in the classroom."

Kira explained, "Last [school] year [2014-2015] we did [a] STEM workshop. It was very successful. They [rest of the kindergarten teachers] did not sit and watch. They too, participated [in the workshop]. This year we did something similar." This workshop was set up with six or seven different stations that promoted different STEM parent-child playful learning activities. Kira explained,

We have different stations and after I explain the purpose of the STEM workshop and stations, then parents will divide freely and go to the different centers. One might be making a LEGO car. One might be building a bridge or making a chair like three Goldilocks. So something will not crush the chair made out of Popsicle sticks, and [one might be] make a bridge for Three Billy Goats Gruff. Some [had] connection to the literacy [standards].

As Kira took on a leadership role among the rest of the kindergarten teachers at her school, she emphasized that STEM education should be part of the children's kindergarten and primary grade experiences. She continued, "The LEGO materials, [which included] duplos, lego, and megablocks were part of two mini-grants I wrote as part of our STEM initiative for our grade-level. Often kindergarten and pre-kindergarten are ignored. Even first grade and second grade."

In addition, Kira used this STEM initiative to support the action research project she needed to complete for her master's program in ECE. She acknowledged,

My grade level colleagues agreed to participate in my research 'The development of professional learning community in early childhood classroom.' That is why I wrote many grants to get more playful materials for my grade level colleagues and their classrooms.

Using persistence and creativity to implement playful learning.

With her strong philosophy in playful learning and personalizing instruction, Kira found it challenging when she and the rest of the faculty at her school were mandated to adopt and implement a scripted English language arts curriculum with fidelity. She continued, "Playfulness is how I teach. What we teach [the scripted curriculum], cannot change in public school. Especially our [school], we have to follow [the scripted curriculum] with fidelity." Moreover, Kira found that following the curriculum in this fashion took about two and a half hours each morning, which lessened the time for more playful learning in oral language and literacy development for her struggling students. She said, "But I know from my experience, those kids are going to be left behind, or skills they [are] not going to have. I can give them. I feel I was cheating them." Therefore, Kira met with her principal multiple times to share her concerns about the curriculum and advocate for her students. She explained,

I find I need to speak up and communicate with my principal. I went to speak three times during the first semester about my concerns about the scripted reading curriculum. I feel my children will be

left behind or not going to develop the skills they need [because they do not have time to playfully learn].

Through these conversations with her principal, Kira realized that her principal was following the directive of the complex area superintendent, who decided to implement the scripted curriculum with fidelity in all elementary schools in the complex area. Eventually, Kira's principal made an accommodation for her. She affirmed, "[My principal said] 'Teach what you have to do. You still have to teach it [the scripted curriculum], as I cannot give you a license to do something different, just because you know what you are talking about. [However] if you find extra time, you can add what you do, such as workshops during your English language arts period.'" Kira declared,

That is when my creative mind came. I'm going to breeze through, and I'm going to go fast. So children have to be focused, so they can play at the end. So it worked. Instead of using two and a half hours in the morning for *Wonders*, I do it in an hour.

Once Kira realized she was being given permission to add to the scripted curriculum if she had time, she used her creativity to adjust the pace of how she would implement the scripted curriculum. Besides going through the scripted reading curriculum quickly, she made literacy strategies more fun and active for her children. Kira explained,

I was able to do it very quickly, which we did, and because we do it like a game, like play. Right in the middle they will go back to their seats, they will grab their white board marker. We will play. They are constantly doing something, not me teaching. And if they are quiet, they are not doing their job. They might be writing their sight words, but at the same time, they might be sharing with others, they might be adding their drawing.

Kira also adjusted how she rolled out the scripted curriculum reading lessons with her children. She stated, “I did not wait until everyone mastered the skills. I just moved on but always went back to reteach”.

After a year of teaching with the scripted reading curriculum, Kira reflected,

Although this year it [the reading curriculum] is a little bit loosened. But we still have to teach [it].

We cannot change what we teach, but we can always change how we teach. That is where I see play fits in our school.

Own self-efficacy and determination.

It became apparent that Kira’s own belief system about play as pedagogy, her determination, resourcefulness, and experience helped her to incorporate playful learning in her classroom. She affirmed, My core beliefs, my stubbornness, my fearlessness and ‘I don’t care about what’s not important’ attitude. The pedagogy [is] what is important. That [play] is something you cannot negotiate. Deep inside, that is something I cannot give up. That is play, to me.

Furthermore, Kira’s discovered that she needed to be a creative problem-solver to embed playful learning in her classroom. She reflected,

I find myself being very creative. Being creative all the time, thinking about what if I do this. What if I put those together so they have more time to play or, you know what I mean? I did not know how creative I was and I’m getting better at it.

Finally, despite the impression that play was limited or squelched in public school kindergarten classrooms, Kira discovered by being resourceful she could include play in her classroom. She confirmed, “Even in [the] kindergarten public school setting, it seems like it [playful learning] has been working for me.”

Different playful learning approaches added to scripted curriculum.

Kira utilized teacher-guided literacy and math centers daily, and when possible, child-initiated play rotated with STEM, physical education (PE), and science.

Teacher-guided literacy centers.

Daily, Kira incorporated a playful learning approach through 20-30 minutes of teacher-guided literacy centers, with different learning goals. This included a puppet center, a house center, a white board center, a boogie board center, computers, puzzles, sing a chart, felt board story board, and a writing center. Children participated in literacy centers while she often worked with a small group on a specific literacy strategy. Kira shared,

Many girls go to the pretend center [where] they pretend to be a teacher or they pretend to be an animal. But [I tell them] they have to stick to their roles so that children develop and use higher-level language. There is a lot of movement and everyone is playing the entire time. Somebody with a white board [can] copy the board. They can copy anything they see in the room.

Through these literacy centers, Kira emphasized oral language development, as well as reading and writing skills. She asserted, “They need to read, write or talk, those are the literacy centers. They are starting to recognize what are literacy centers. Literacy centers are [the] writing center, whiteboard, read the room, puppets, write the room, reading, house center.”

Giving children opportunities to have choices in their learning strategies was important to Kira. For instance, after the literacy centers, she gathered her students together on the carpet of the classroom to conduct a Writer’s Workshop mini-lesson on a specific writing strategy, then gave she gave them time to use the strategy in various ways. She said, “They could draw, write in their writer’s notebooks; they could write in different areas of the classrooms, including under the table, on the floor, in the corner, or sitting in front of the guinea pig cage.”

Teacher-guided math centers.

Kira utilized math centers with different types of hands-on learning tasks related to mathematics standards in CCSS. She explained,

And in the afternoon they can do math centers. They can do shapes, counting, you can stack things. We do sorting. Friday's lesson was sorting. Today's lesson was number one through five. They have used the little fruits to sort. Many [children] do sorting, stacking, play[ing] with shapes, build[ing] things.

Kira preferred to incorporate math lessons utilizing concrete materials and offering them through three active learning games that students rotated through in small groups. For example, one game entailed children using water bottles as bowling pins and throwing a ball to take away a certain number of bowling pins. A second game encouraged children to take away a certain number of plastic colored bears and put them in a paper tent to sleep in. A third game prompted children to take steps backwards from a jumbo number on a floor.

Limited child-initiated play in centers.

Kira believed in child-initiated play with the active presence of a teacher. She said, "Children need to have time for free and unstructured play, where they play with shapes, build things, work with others. They need to figure things out, so their brains don't shut down." However, due to a very full daily schedule for her students, she could only offer child-initiated play in centers for about 15 minutes. Kira shared, "[I do] free play centers only if there is time. But they can draw in their doodle book. They did guided play in literacy and math centers. When we have STEM, PE and Science we don't have free play." In addition, Kira knew art experiences were important for children; therefore, she provided opportunities four times a week for child-initiated art, which included, painting, cutting and gluing, working with clay.

Concerns about specific kindergarten CCSS.

Kira learned that much of the CCSS for kindergarten aligned with developmentally appropriate expectations. However, Kira thought one of the reading standards and one of the math standards was developmentally inappropriate. She clarified, “On one hand we need to be on the same page and we need to have standards and goals; but in some areas, like reading, the standard is too high.” Kira identified the standard that expects all kindergarteners to be able to read by the end of the kindergarten year was not achievable by all of her students. She declared, “When it is too high our kids begin already behind. It is hard for them to catch up, especially English Language Learners.

Kira also felt the math standard that all kindergarteners should count to 100 by the end of the school year was difficult for all children to reach. However, knowing that she could not change the standard, she created a supportive classroom culture to motivate children to reach this goal. Kira acknowledged,

I feel that despite the standard to count to 100, which I feel is a horrible standard, if children reach it they get a reward. It is charted on the wall and when a student reaches 100, everyone shouts and cheers!

Early childhood graduate programs reinforce playful learning.

To strengthen Kira’s teaching with DAP, she enrolled in a graduate program in curriculum studies, with a focus on PK-3. She completed the program in 2015. Before she had completed this program, Kira also began working on a MEd in ECE, which she expects to complete at the end of 2017. Both of these graduate programs connected Kira with other like-minded colleagues and mentors in the field of ECE. She confirmed, “Going [back] to [graduate] school has been very supportive, along with other ECE colleagues and mentors.” In addition to graduate work, Kira also found connecting and participating in professional development sessions sponsored by the local early childhood professional organization fueled her beliefs and practices about playful learning. She listed,

[Non-profit professional] organizations like HAEYC [Hawai'i Association for the Education of Young Children, [and public agencies, like] COE [College of Education at the University of Hawai'i at Mānoa, EOEL [Executive Office on Early Learning], [and] going to workshops and being in the presence of those [educators] who support play.

Professional relationships with early educators outside of her school helped reinforce Kira's commitment to utilizing a playful learning pedagogy.

Closing summary.

In this within case analysis of Kira, she identified that her beliefs and practices about playful learning had been shaped and sustained by her own childhood memories, years as a family child care provider, ECE training, and relationships with ECE mentors. She then showcased her creativity in implementing developmentally appropriate teacher-guided experiential learning and her determination to differentiate instruction for her struggling students despite having to follow scripted curricula with fidelity. In the limited time Kira had outside of implementing the scripted curricula, she rotated child-initiated play, with STEM education and physical education. In addition, Kira was successful in leading a STEM initiative for the seven kindergarten classrooms at her school, which provided time for exploratory play and teacher-guided hands-on learning. Kira's leadership role included obtaining grants to purchase STEM materials, facilitating parent-child workshops, and guiding the formation of a kindergarten professional learning community.

Annie: Within-Case Analysis

The major themes that surfaced when conducting the within-case analysis of Annie were: 1) kindergarten as a time to develop a foundation for learning; 2) a values-based and place-based education through projects and play; 3) benefits of playful learning; 4) the teacher as the facilitator of playful learning;

5) thoughts about CCSS; 6) inner struggles when incorporating playful learning; and, 7) the role of the school principal.

Kindergarten: A time to build upon children’s foundation.

Annie recognized that kindergarten was a critical time for young children. She acknowledged, “We are building and adding to their foundation so when they get to first grade, they are able to meet the demands of what Common Core has.” Furthermore, Annie felt kindergarten was a time when she could help children build their social consciousness and problem-solving skills. She elaborated,

And also our *kuleana* [responsibility] is to strengthen their social behavior . . . We believe if we can build students who can problem-solve, they will fit nicely into our mission of this school. We are problem-based, [and] socially-[focused], so there is [an] emphasis on taking learning into their [students’] own hands.

Annie added that she established a safe place for her students to feel confident, take risks, cope with failure, and progress forward. She maintained,

We have to provide them with opportunities to take risks. With risks, there are lots of failures. But they need some sort of structure for themselves to cope with that, and then to think what is my next step. In addition, the kindergarten classroom environment is a time to create a structure for coping and thinking ahead.

Annie found that learning about the sociocultural backgrounds of her children and their families gave her a baseline to start from. She confirmed, “In kindergarten, it is important to understand families and children’s cultures as who they are, where they come from, then build on that.” One of the first ways Annie established her relationship with her students and their families was by conducting home visits prior to the first day of school. Through these home visits, Annie made genuine connections with children and families,

gained firsthand perspectives of their backgrounds, and used this information to inform her teaching. She acknowledged,

To look at the culture, I have to build a sense of place for these kids, right? I have to build a cornerstone and a foundation that I can pull from, so I can look at the [child's] core and see what the problem is.

During these home visits, Annie shared the school's kindergarten philosophy on play and what kindergartners were expected to learn through play in school. She explained,

At that home visit, we tell them that in kindergarten we play. [Through play, the child] learns to speak for self. [Through play] I am going to demand [that children] speak up and share. [I am going to] demand their kid advocate for [their] friends. For them [children] to do more of what kindergarteners are asked [to do], I do this through play.

Hawaiian values-based and place-based education through projects and play.

Annie shared that her school's mission was to promote an indigenous Hawaiian values-based and place-based education. The school utilized a project-based curriculum, where playful learning was one of the major teaching strategies. Annie realized that through socio-dramatic play, she could teach the Hawaiian value of *na 'au pono* or being upright, just and advocate for the rights of self and others. She clarified,

We say we are big believers in play. We literally demand our students to live their values. One of our biggest values is, even as adults we have a hard time [with it], is what we call *na 'au pono*. *Na 'au pono* is where, the definition that we teach them is to nurture their deep sense of justice. *Na 'au pono* is not just do the *pono* or right thing, because that is what we do, but also standing up and being an advocate for something that is not being done right. One of their biggest values was called *na 'au pono*, which is to do the right thing or justice; and to stand up and speak up when wrong is being done against self and friends.

Annie further elaborated that through play when children could advocate for each other, they developed important empathic traits towards others. She continued,

When they advocate, when I see kids advocate especially the younger ones. It shows they have empathy and are sympathetic. Hard to teach when they don't have a place to come from. That has to be their core. 'I was in your shoes one time. I know exactly how you feel and I did not like it, so I'm going to speak for you.'

Annie also recognized how play stimulated children's inquisitiveness which was at the heart of the school's project-based curriculum. She responded, "With play, it also gets their curiosity going. Because you cannot be in a project-based learning environment without the questions."

Projects were deep investigations of relevant topics based on students' questions about their immediate social and physical world or sense of place. With project work, Annie utilized concrete firsthand materials and activities, including many field trips and rich learning centers that were arranged both outdoors and indoors, to aid in children's learning. For instance, for a project exploring buildings, Annie included a field trip to expose her students to see and experience different buildings, including sky scrapers in the city. After the field trip, Annie provided materials in one of the learning centers, like playdough and Popsicle sticks, for children to replicate what they had learned about buildings.

Annie also discovered that skills children used when playing in learning centers were foundational approaches they needed to do investigative projects. She reported, "The same skills they use for center time, they use it for project learning. This is also how sports is used. There are skills that help them with their academics."

With the end of the year in mind, where each student presents their project work, Annie knew play would support the development of many different skills to help her students be successful. She explained,

At the end of the year, they have to present a project. These skills are a must. They need to present in a project. Need to present to your family and other families. In order to get there, I need you [student] to work with a partner, so others can clearly understand you and [how] other[s] might need to compromise, if you need to compromise. [Therefore] we spend a lot of time playing at the beginning of the year.

Benefits of playful learning.

Through Annie's day to day interactions with children, she found that there were many skills and attitudes that children were learning through play that eventually led to rich and engaging project work.

First, Annie confirmed that play was a natural function for children; therefore, she incorporated play into her instruction as an effective strategy. She maintained,

[Play] is so natural. Shall I be the teacher and swim upstream and fight this. Can I use it for my benefit to instruct better? So why fight it. It is not that it is [a] lazy [method]. [Rather] it is working smarter than harder.

Secondly, Annie discovered that play encouraged children to be active thinkers and doers. She elaborated,

Play is an action kind of thing. You have to respond. It is always an immediate response or immediate reaction. Whatever is deep down in you, your reaction will reflect what you really are.

Play is a way of doing and learning and expressing who they are.

Thirdly, through play Annie found that she could teach children interpersonal skills, including how to manage conflicts. She expounded,

I guess you could see the social interactions differently in different parts of the day. But, play allows me to teach a hard concept [such as conflict management] to five and six-year-olds. It is not something all families come with or all students come with. Also, not as tangible as we would like it

to be. When it comes to teaching, there are a lot of emotions that run with that. When someone has hurt you, when someone you were not paying attention, or when someone hurts you that did not intend to hurt you. There are reactions. But you can teach through play.

Fourthly, another favorite child-initiated play that Annie's students enjoyed was pretending to be the teacher, or *kumu* for the day. In this role, often children were representing the literacy concepts they were learning. She elaborated,

Sometimes they will find the "kumu" book. Some will find the book that kumu just did. But sometimes they will grab the first book. It is fun to hear that. What comes out at the end of the year is like a Reader's Theatre. . . They are telling the story. You hearing the sequencing. They are still speaking and listening. They have to be clear and concise and speak in complete sentences.

Especially with the books, like *Knuffle Bunny*, there are some kids who memorize[d] the book. You hear their intonation.

Fifthly, Annie recognized that through play children felt safe to take intellectual risks and talk about their inner thoughts. She asserted, "Play give[s] our kids a venue to share, including sharing their ideas and their visions. Through play, all of my students have been able to comfortably share [their ideas] and this helps me get to know them better."

Finally, Annie learned that simultaneously as children shared their ideas through play in small groups, they strengthened their communication skills. She said,

So we use lots of play for communication. Centers are small [groups of children]. This is what it looks like, this is what it sounds like. When I want to play with another friend, this is how I would ask.

Annie realized better communication skills led to more effective collaboration among her students when they played together. She said, “Play is my venue of teaching collaboration . . . Collaboration is a must and a skill they need for this generation. Play is a language they all know.”

Teacher’s role as facilitator of children’s playful learning.

Annie communicated that she and her fellow teachers at the school had to shift from a traditional teacher as director model of education to a progressive model of education with teacher as facilitator. She reported,

[We] move[d] from [a] Western traditional way of teaching, [where] students [were] at desks and they wrote and memorized facts. To now learning in natural settings, [where] students [are] no longer quiet, instead they are working, having discussions, singing. No longer is learning done in [a] really reserved way, where they sit and everything is fed to them. Today, students choose their learning environment and take responsibility for their learning.

As her role changed from director to facilitator, Annie found she had to step aside and allow children to be more self-directed. She emphasized,

When you give up the authority of structuring every single minute of that kid’s life, right? And when you become a facilitator, compared to a teacher. The teacher, I feel like, if I’m just the teacher, I’m the entertainer. [I] cannot compare to any movie, or any LEGO movie. Right? I cannot do that . . . It is a humbling experience to give up authority of allowing them to go where they need to go, of allowing them to drive their questions to where I need them to get to, allowing them to take control of their learning for the entire day.

When Annie facilitated play as a teaching strategy, she used play to help her students become more proactive in taking risks in their learning. She confirmed,

Play not only becomes an integral part of how they learn skills [and] to take control of that. Play then becomes their vehicle to get where I need them to go. They are able to take risks during centers, which makes them take risks during recess, which makes them take risks during all the academic time we have.

Annie discovered that effective facilitation encouraged children to self-generate questions. She said, “I see myself as the facilitator and just guiding these guys. But in order for me to be an effective facilitator [with] these little guys, these five-year-olds [had to] come up with their own questions.” Questions then helped children take greater responsibility for their learning goals. Annie continued, “But if I’m the facilitator, somehow these kids are able to hold up expectations, these five- and six-year-olds, are able to hold up expectations, for themselves and for myself.”

Beside children’s questions, Annie also offered thoughtful questions that guided children to deepen their focus on specific areas, including their sense of place and the scientific inquiry process. She contended, “Because of that, I am able to present essential questions, like how can you positively and negatively impact your *wahi pana*, which is a sacred place. It is a place we’re studying. Right? We’re studying coral. Right? Being able to bring subjects like that, is what I think is a challenge for people to think that five-year-olds can do it.”

Children need ample time for playful learning.

Through small group learning centers, Annie incorporated child-initiated play opportunities using both indoor and outdoor spaces. These centers included such interest areas as, math, library, blocks, science, imagination, arts, using digital technologies, and games. She explained, “Center time was when children did things other than their academics. It is a time to play games and socialize, [and when children are] using their imagination.” In addition, Annie understood that teaching kindergartners how to play and interact in

small groups through learning centers was a more effective learning format than teaching them to play and interact as a whole class. She maintained,

You [as a teacher] teach them how to play with each other, because they have to be able to manage themselves. But playing when they are twenty kindergarteners, as opposed to playing with four or five, playing is different. Now [in small groups] they are forced to interact with each other, forced to share. Everyone's ideas are different at the beginning of year.

Annie stated that it was critical to give children enough time for both teacher-guided learning centers and learning centers for child-initiated play each day. She confirmed, "Research also show that kids need about an hour for [child-initiated free] play because it takes about half an hour to get something really going. They learn to compromise."

She found that her kindergartners gained more confidence as communicators and collaborators when they were engaged with child-initiated play centers. Annie continued,

When children are engaged in child-initiated play in their learning centers, they are learning about communication, collaboration, compromise and confidence. They learn about communication by speaking with a *kumu* [teacher] voice; by speaking in complete sentences. They learn confidence by speaking with a *kumu* [teacher] voice, in front of the class, school, to share their ideas.

Through project work, children gain in-depth knowledge about a specific topic through questioning, interpersonal conflict resolution and negotiation skills. Annie explained,

They learn about collaboration and compromise through their projects where they have to share with partners and in their presentation to their families. In order to collaborate and compromise through their projects they have to practice these skills in play.

Teacher-guided literacy and math centers.

In addition to planning for daily one hour doses of child-initiated play, Annie also planned teacher-guided learning centers that were aimed at CCSS academic goals related to language arts and mathematics. Annie adopted the *Daily 5* for her literacy stations to teach reading and writing. She discovered that children would motivate each other when they were together in these literacy centers. Annie reported,

I teach reading, but I don't have to teach motivation, because they have a couple of friends that read and during centers they love to sit with their friends and read and then they ask, 'How do you know how to read?' and 'How do you know that word?' that kiddo is teaching how to read.

Annie also shared how teacher-guided learning centers promoted children's mathematical and scientific understanding through play. She elaborated,

Most of their play is in math. For example, they had a geometry center where the teacher [would] teach children how they can make pictures with various shapes. They also use[d] blocks for architecture. When they have gone on a field trip and [had] seen skyscrapers, they would then build what they have seen. Children are encouraged to build at home. Another time, the children were given a zip-lock bag of playdough and toothpicks and were assigned to build a 3-D shape, like a rectangle prism. They are learning about weight and distribution of the material[s].

Strengths and challenges of CCSS in kindergarten.

Annie realized that there were strengths and challenges to the kindergarten CCSS. Under the strengths, the standards acted as a guide to help her identify learning goals that challenged her students. She stated,

If you asked me, I say Common Core is a guideline for me. I know what skills I want my kids to learn, but the Common Core helps guide me. It is [a] marker and has helped to guide me in my teaching.

In addition to being a guide, Annie found CCSS gave her an idea of what students needed by the end of the school year. She reported,

There are our pros and cons. As a pro, it makes me push as a kumu to get the students to where it [the standard] is. It gives me an outline, a finish line [that] we want our kids to be here at the end of kindergarten. For me that is very helpful and helps me build that big picture. Can all kindergarten students hit it? I think so. It is super ... I guess it is rigorous in that they will come out as readers and semi-writers.

Another strength of CCSS was that the awareness of the standards made Annie's students more focused on working towards learning goals. She maintained,

It is very goal oriented for our students. It is from the get go, for the whole students. I was thinking look at your data. 'Let's look at, what do you think you are doing well.' We build it up. 'This is where I think I need you to go and this is where you are at. What do you think would be the best next step for you?'

However, Annie felt that one of the challenges she encountered about CCSS was hearing the discouragement of a few children who had difficulty reaching the standards by the end of the school year. She explained,

When they are seeing [their] friends master things and they can see [and ask] themselves [and me], 'Kumu, am I supposed to be doing that?' And there are always the kids who will question, 'What if I am not doing that? Do I move up?' [I tell them,] 'You live your values. You have a foundation.' Those are hard conversation[s], [which] makes Common Core [goals] defeating. You build them up and building them up but you cannot stop them from recognizing others' success. That is one of the challenges.

Inner struggles of incorporating playful learning with CCSS.

Annie acknowledged that as a rather new teacher, she was learning how to effectively teach using the different kinds of playful learning strategies to reach CCSS goals. She shared, “There are lots of things to learn. I am still learning as a young teacher about what works and not work.” She also discovered that because she wanted all her students to do well on their performance assessments related to CCSS, she had conflicting thoughts about reading test scores. She reflected,

Everyone says not to teach to the test, but it is not easy to follow that. You have to relinquish that thought. As long as they do their best, teach them the skills so they can succeed in [the] test. To relinquish this is so hard.

Annie found that with the emphasis on children reading by the end of the kindergarten year, sometimes she felt that she should focus on teaching kindergarteners to read through direct instruction rather than have them be engaged in playful literacy activities. She said, “Sometimes I look at centers, that we [the students] can be better readers by doing so much with reading.” In conclusion, Annie described that the ‘inner war’ she sometimes felt came also from her need for validation as a teacher; therefore, she was deeply grateful for her current principal who always strengthened Annie’s morale and confidence as a teacher. She continued,

[Teachers] need validation. It is like an ‘inside war’. There are so many factors that come up. When you don’t have the validations that is the challenging part. That is why it is good to have a [principal] to step in. We need those reminders. That is why we do this.

Receiving validation for playful learning.

First, Annie did not have formal training about play in her undergraduate coursework, but she had people very close to her who valued how children learn through play and affirmed her daily pedagogical decisions in using playful learning. Her theories of educational play was heavily influenced by her best

friend who was a teacher and was a proponent of play contexts for teaching and learning with young children. At the same time, she naturally gravitated to play and active learning, especially games with rules, because she was raised in a physically active family who emphasized excelling in playing organized sports and academics. She maintained,

I came from an athletic family. Kids can play sports. We are big believers that sports [are] like academics. Discipline for both is not like a light switch. Cannot turn it on or turn it off when you want it. How well you do in the classroom will shine on the court. Our family's belief is how well you do on the court, you do well in school. Basically, it was a discipline.

Annie confirmed that because playful learning was linked directly to the educational mission of her school, all faculty, including her school principal, were hired knowing the school adopted a play-based curriculum. Fortunately, her principal was a strong proponent of play. She declared, "My current principal sees the importance of play and values play." Annie shared that her principal's understanding of the power of play was especially evident after her principal completed an observation of Annie's play centers. She continued, "Being able to have her observe the [play] centers. Not exactly the teacher direct[ed] instruction. She sees the value of play. We get to defend, as kumu [teacher], why we do things." Annie was very grateful for her principal's encouragement and stance on play. She stated, "She is super supportive and she sees the intention and importance of it [play]."

Secondly, Annie shared that as children learn through play they were able to feel safe and do their best. She confirmed,

Children do their best because they give their best and they do their best when they don't feel threatened. I said 'It was enjoyable to hear the celebration of others' success and the genuine celebration of their success.' Then when you sit back and you tell yourself, that this [success] could not come out by just doing academics and worksheets. It has to come out because of play.

Thirdly, Annie was learning to become a vocal proponent of playful learning not just for kindergarten but for all grades. She affirmed, “I also believe that older students can play too. I’ll be doing kindergarten this coming year and after that I’ll be moving up to fifth grade.” By being with a project-based and place-based school where children’s active playful learning experiences are respected, Annie will continue to strengthen her position as a staunch supporter of play as a major vehicle for learning in all grades.

Closing summary.

This within-case analysis of Annie highlighted her perspectives on how play as pedagogy aligned with her school’s educational vision and mission. She facilitated both child-initiated play and teacher-guided hands-on learning, including games with rules, as a teaching strategy to scaffold children’s active inquiry process towards meaningful project work in her teacher-designed curriculum. In addition, Annie emphasized that the sociocultural nature of play linked to the school’s strong sense of place and Hawaiian values. Despite how she was able to incorporate a play-based curriculum in her classroom, sometimes Annie still felt internal pressure with the standards and accountability movement in education; therefore, receiving ongoing support and validation from her principal was necessary to sustain her playful learning approach.

Cross-Case Analysis

This section presents the cross-case analysis of four kindergarten teachers—Ellen, Sheri, Kira and Annie. This section highlights key themes about how all teachers have come to embrace play as a pedagogy in their standards-based kindergarten classrooms. The key themes that surfaced were: 1) educational pathways influence teachers’ beliefs about play; 2) the power of playful learning depends on the curricular approach; 3) intentional teaching and play; 4) child-initiated play as their work or something they earn; 5)

organizational support for play as pedagogy; and, 6) balancing the tensions between teachers' beliefs and practices about playful learning with school expectations.

Educational pathways influence teachers' beliefs about play.

Three of the four teachers explained that their beliefs about the importance of play in young children's learning and development were influenced by the formal educational pathways they took that focused on ECE. Two of the teachers obtained bachelor degrees in elementary education, with a minor in ECE, including a course on play. Another teacher completed an undergraduate degree in elementary education and a graduate program with a PK-3 certificate. At the time of this study, she was also completing a master's degree of education in ECE, where she participated in a week-long summer institute on playful learning.

Playful learning dependent on the curriculum approach.

All teachers shared that there were many benefits to incorporating playful learning into the kindergarten classroom. Some of benefits of play they shared were: 1) play was a natural and enjoyable activity for children; 2) play was a vehicle to develop children holistically, including socially, emotionally, cognitively, linguistically, and physically; 3) play motivated and engaged children in learning concepts in various subjects, such as language arts, science, social studies, math, art, music and physical education; 4) play gave children opportunities to communicate with one another, take social and intellectual risks, and build their confidence and collaboration skills; 5) through play children cultivated their self-regulation, creativity, and critical thinking skills; and, 6) children learned about community values and positive character traits, like fairness, respect, and trustworthiness, by playing and interacting with one another.

The extent to which each teacher utilized a balance of child-initiate play and teacher-guided play in their curriculum, seemed to be affected by the type of curricular approach being used. In this study, the two

curricular approaches that were primarily used was a teacher-designed curriculum or a commercially purchased scripted curriculum.

Annie and Ellen primarily used a teacher-designed curriculum that incorporated a balance of teacher-guided experiential learning and child-initiated play into all areas of the curriculum. Some of the areas of the curriculum that teacher-guided play were used for were: language and literacy, math, integrated STEM experiences, physical education, character lessons, and guided art experiences. Child-initiated play was used to further deepen children's creativity, self-regulation, moral development, social-emotional learning, and physical development.

Sheri and Kira who were mandated by their districts to rigidly follow published scripted curricula. The curricula contained some teacher-guided experiential learning experiences, however, diminished or eliminated time and flexibility for child-initiated play, for their students.

Intentional teaching and children's play.

All teachers explained that it was critical for them to intentionally use play as a vehicle to support children's learning and development. Intentionality meant observing individual children and using certain teaching strategies to scaffold children's play to meet learning goals. Sometimes it was allowing children to be more exploratory with specific open-ended materials; enhancing children's use of language with hints, encouraging words, open-ended questions; adult role playing or demonstrating new concepts; direct instruction about certain rules for games; building thematic make-believe or construction play with relevant props; or having children represent their thinking by playing with digital tools. One of the teachers shared how she took on the role as co-player in socio-dramatic play to help children grasp lessons of reciprocity and respect for the rights of others. All teachers were thoughtful about embedding playful learning into developmentally appropriate STEM activities aligned with NGSS. Being intentional meant being

purposeful in incorporating songs, music, movement, story-telling, manipulatives, games, puppets, art, and role playing, into teacher-planned instruction, when applicable.

All teachers elaborated that they had to be intentional in how they established the learning environment for playful learning through the arrangement and equipping of learning centers. Learning centers were areas in the classroom where small groups of children focused on playing and engaging in meaningful activities together. With the emphasis on CCSS-ELA and CCSS-M, all teachers incorporated teacher-guided literacy centers and teacher-guided math centers in their daily schedule. Two teachers adopted the Daily 5 framework for their literacy centers, which gave children an opportunity to learn five key literacy strategies.

Child-initiated play: Child's work versus child's earnings.

In addition to variations in their curricular approaches and how they used their time for both teacher-guided hands-learning and child-initiated play, the teachers also varied in their understanding of child-initiated play as the work of children or play as something children earn, like a reward after their hard work all day. Three of the teachers shared a common belief that child-initiated play was the serious work of children. The fourth teacher believed that child-initiated play was something children had to earn at the end of the day.

Organizational support and validation for teachers' play-based practices.

All teachers articulated that the support they received from others—school principal, colleagues, and students' families—was critical to their successful implementation of playful learning in their classrooms. In particular, the principal's role as instructional leader and as their supervisor was highlighted as the most crucial support by all four teachers.

Two teachers shared that their principals established a precedent for a play-based kindergarten by hiring teachers with an ECE background and a strong philosophy on playful learning in kindergarten. Their

principals also asked teachers to select quality play equipment and materials for various learning centers in the classrooms. Furthermore, their principals supported teachers' pedagogical decisions in designing and implementing a developmentally appropriate play-based curriculum. Because of their principals' understanding of the importance of playful learning, these two teachers could provide ample time for child-initiated play.

The other two teachers did not feel they had the full or consistent support of their principals. It appeared that their principals had a limited understanding of how children learn and develop through child-initiated play, and were more knowledgeable about teacher-guided experiential learning. However, the principals were shifting their thinking as teachers' understood the perceptions of their power to make intentional pedagogical decisions and use multiple ways to communicate the value of play as a teaching strategy. They did this by showing and translating what educational play looked like and what children were gaining from playful learning.

In addition, all four teachers expressed that networks with other teachers and mentors, with similar beliefs and experiences about developmentally appropriate playful learning, helped them maintain and renew their commitment to play as pedagogy. Of the two teachers who emphasized the importance of professional learning communities (PLC) with other kindergarten teachers, one teacher was part of a longstanding ongoing PLC; and the other teacher started a new PLC for the kindergarten-wide STEM initiative at her school.

Balancing tensions between teachers' beliefs about playful learning with school expectations.

A final theme that emerged for all participants in the study was how they were balancing the tensions between their beliefs in developmentally appropriate play-based approaches in kindergarten with school expectations of rigorous standards and required accountability measures.

All of the teachers acknowledged that over the years, practices in kindergarten, like playtime, art, and naptime, had been eliminated or reduced in the daily schedule. Three of the teachers shared how they felt pressured to reduce or eliminate child-oriented play to make room in their daily schedule for school priorities and mandates. Two of these three teachers were mandated to follow pre-packaged scripted curricular for both English language arts and mathematics in a lockstep manner. They could only fit in around 15 minutes of child-initiated play on a daily or occasional basis. Later one of the teachers was able to gain approval to add more engaging literacy strategies to teach her struggling students. The other teacher began to slowly add in more hands-on experiential learning in her unit plans and lessons.

The fourth teacher was not pressured to reduce child-initiated play but was challenged by her own “inner wars” when she found herself have an internal debate about using whole group direct instruction to teach reading; and resisting the temptation to ‘teach to the test’ because of heavier emphasis on testing in elementary schools.

All the teachers understood that CCSS was a set of shared goals and expectations for the knowledge and skills students need in English language arts and mathematics at each grade level. However, three of them raised concerns about specific reading and math standards. These teachers expressed that these expectations sometimes led to developmentally inappropriate lessons and added an extra burden on certain children who were struggling to meet these specific academic goals.

All teachers expressed that because the first CCSS were focused on language arts and mathematics, they had concerns about kindergartners’ holistic development. Therefore, STEM, art, and social emotional learning were included whenever possible.

Summary of key themes in cross-case analysis.

This cross-case analysis of the four kindergarten teachers surfaced key themes of how they have incorporated playful learning in their standards-based kindergarten classrooms.

The first key theme identified how three of the four participants' beliefs about play as pedagogy were influenced by their teacher preparation programs in elementary education with specialized ECE courses. Their programs, included a minor in ECE with a specific course on play; a graduate PK-3 certificate; and a graduate ECE program with a week-long summer institute about playful learning.

The second key theme illustrated how all teachers varied in how they utilized the power of play in their curriculum because of the type of curricular approaches they were using. Teacher-designed curriculum allowed ample time and flexibility for child-initiated play; whereas, rigidly following scripted curricular limited the time and flexibility for child-initiated play, thus limiting the full benefits of playful learning in the curriculum.

The third key theme that was highlighted was the crucial role of the teacher to be intentional in facilitating playful learning to help children reach challenging and achievable learning goals. Teachers shared how play opportunities were most effective for children when they not only scheduled enough time in their day and week for playful learning, but also when playful learning was thoughtfully organized and managed through different learning centers. All teachers intentionally selected different teaching strategies to scaffold children's learning through play.

The fourth key theme identified how three teachers valued child-initiated play as the work of children. Whereas, the fourth teacher used child-initiated play as an earning or reward for students who worked hard and completed their work during the school day.

The fifth key theme emphasized how teachers who were embracing and incorporating playful learning needed strong ongoing support from their educational organizations, especially from their school principals and other kindergarten teachers.

A sixth and final key theme was how the teachers were balancing the tensions they faced with their beliefs about developmentally appropriate play-based practices and differing school expectations. One

tension was the reduction or elimination of child-initiated play because more time was needed for the implementation of mandated prescribed curricular and the completion of more assessments. A second tension was the internal pressure to use direct instruction to teach reading skills or succumb to teaching to the test in this climate of standards and accountability. A third tension was a concern that a couple of specific standards were developmentally inappropriate for some kindergartners. A fourth tension was broadening the focus on the whole child when priority has been on the cognitive child.

In conclusion, this cross-case analysis illuminated the commonalities and differences in the supports and challenges these teachers have experienced as they incorporated developmentally appropriate playful learning in their standards-based classrooms.

Summary

This chapter provided the within-case analysis of each of the four participants in this study. Each within-case explored the perceptions of how each teacher was incorporating playful learning in their standards-based classrooms. All teachers were found to articulate a strong belief in the importance of play in kindergartners' learning and development. However, they varied in their curricular approaches, in the supports they had, and in the challenges they faced to incorporate playful learning in their standards-based classrooms. These variations seemed to be dependent on the interplay between the validation they received from their school leadership and colleagues; and the sense of their own power to make intentional pedagogical decisions about playful learning in their practice. In the next and final chapter, I will be presenting the findings, implications, and a few concluding remarks.

Chapter 5: Findings, Implications, and Conclusion

This chapter will present major findings from the case study analysis, implications based on these findings, and a conclusion. In this first section, findings are organized by the three main research questions of this study. The findings reflect the results of the data analysis and supporting theories and ideas gleaned from the literature. Additionally, I clarify whether the findings supported the research questions and what factors may have contributed to any differences.

As stated under definition of terms in Chapter 1, playful learning is predominant in a play-based curriculum or play-based approach. It is where play, a balance of child-initiated play and teacher-guided hands-on experiences, is central to teaching and learning in the learning environment. In this study the terms, playful learning, play-based curriculum, and play-based approach are used interchangeably.

Findings

Research question 1: What are kindergarten teachers' perceptions of the role of play in kindergarten?

The results of this study appear to illustrate that all the teachers identified play as a natural, enjoyable, and shared activity among young children, which transcended cultural, language, and socio-economic backgrounds. They asserted that different types of play, such as, construction play, sociodramatic play, games, playing with language, big body play, creative arts, and sensory play, helped children learn in a variety of ways and all of them had a place in kindergarten. Teachers expressed that through play kindergartners developed socially, emotionally, physically, cognitively, morally, and linguistically. The science of child development and effective educational practice also emphasizes that play is a major vehicle through which young children learn and develop (Charlesworth, 2014; Elkind, 2008; Rushton, et al., 2010; Vygotsky, 2004; Weisberg et al., 2013).

All of the teachers agreed that playful learning consisted of teacher-guided, experience-focused hands-on learning and classroom rich child-initiated play and both had a role in kindergarten. Three of the teachers agreed that both teacher-guided play and child-initiated play were the serious work of children. A study by Miller & Almon (2009) concluded that a balance of child-initiated play and teacher-guided experiential learning was the most effective approach to foster kindergartners' healthy development. However, one teacher viewed child-initiated play as something children earned at the end of the day after completing their academic work. Studies have shown that the myths of play, such as, play as a reward, or the false dichotomies that surround play, like play versus work, have been unresolved in the U.S. and this has made it difficult for people, including educators, to understand how play and academic rigor are interrelated (Frost et al., 2005; Kostelnik & Grady 2009; Wohlwend & Pepler, 2015).

Prior to conducting this study, I had anticipated that all four of the kindergarten teachers would perceive both teacher-guided play and child-initiated play as the important work of young children. Therefore, I was surprised when one of the teachers stated that child-initiated play needed to be earned, as a reward for the hard work children did. I knew based on research that because of the existence of myths surrounding play, using play as a reward was not uncommon, even among early childhood teachers.

Research question 2: Why are kindergarten teachers implementing a developmentally appropriate play-based approach to address content standards?

All of the teachers in the study articulated a philosophical belief that playful learning was an important component in a developmentally appropriate kindergarten classroom. They chose to implement a play-based approach because through play children found learning to be pleasurable, meaningful and engaging. They shared that playful learning enhanced how children learned subject matter or content, such as language and literacy, math, science, art, and social studies. Play provided children with opportunities to interact with their peers, develop self-regulation, take social and intellectual risks, and enhance their

creativity. Years of research (Berk et al., 2006; Bodrova & Leong, 2003; Christie, 1983; Singer et al., 2006; Smilansky & Shefatya, 1990; Weisberg et al., 2013) have affirmed that active, engaging play promotes children's social, emotional, cognitive, self-regulated, language and physical development.

Three of the four teachers shared that their ECE courses in their teacher education programs, which focused on play and DAP, helped shape their foundational knowledge about play as a major vehicle in young children's learning and development. The fourth teacher received her bachelor's degree in elementary and special education and did not take ECE courses.

In addition, research (Rushton et al., 2010) about the relationship between neuroscience, learning, and play in young children had a profound impact on a couple of the teachers' beliefs and practices. Furthermore, a study by Jung and Jin (2015) found that well-designed ECE courses in teacher education programs, with a focus on play in the curriculum, have a significant role in future teachers' beliefs and intentions to implement play in their classrooms.

All teachers explained that their observations of children's actions and responses, when they were engaged in playful learning, provided a strong rationale for incorporating a play-based approach in their classrooms. In child-initiated play, children used their imagination and enhanced their language and problem-solving skills, as they played different pretend roles using literacy props, interacted while playing cooperative games, persisted at building complex structures with wooden blocks, and created with open-ended recycled materials. Teachers in the study described that they incorporated teacher-guided, hands-on experiential learning in literacy centers with a variety of materials to support students' emerging reading and writing skills. They shared that teacher-guided play in math centers, encouraged their students to play with manipulatives to address math goals. Additionally, when concepts were taught in a playful manner through singing, movement, puppets, role playing, or playing games on digital tablets, children were more motivated and engaged in the learning process. Many studies on play (Christie, 1983; Galda, 1982; Isenberg &

Quisenberry, 2002; Kamii, & DeVries, 1980) have shown that both child-initiated play and teacher-guided hands-on play were central to young children's development and learning.

Prior to the results of this study, I thought I had anticipated what all of the teachers' perceptions might be in response to why they were incorporating playful learning in their classrooms. However, one unanticipated finding was a teacher who did not take ECE courses when obtaining her bachelor's degree, yet seemed to have adopted a strong philosophical belief in play as a kindergarten teacher. The difference could be attributed to the positive influence of her principal and her best friend, who were both firm believers in play in young children's school experience, and the teacher's school which had a mission that valued playful learning.

Research question 3: How are kindergarten teachers implementing a developmentally appropriate play-based approach to address content standards?

The findings in response to this question are divided into two sections. The first section illustrates how teachers made pedagogical decisions about implementing a play-based approach to address content standards in kindergarten. The second section reveals the factors that empowered teachers to incorporate playful learning in kindergarten.

Teachers' pedagogical decisions about playful learning.

The pedagogical decisions about implementing a play-based approach to address standards were organized into five categories. They were: 1) type of curriculum being implemented; 2) the learning environment; 3) play as an instructional strategy; 4) tensions between beliefs about play and school's expectations; and, 5) perceptions of their power in making pedagogical decisions.

Type of curriculum being implemented.

Playful learning, a balance of teacher-guided experiential lessons and child-initiated play, was found to be an integral part of a play-based curriculum approach. In this study, the type of curriculum and how it

was being implemented appeared to impact the teachers' ability to offer a balance of teacher-guided experiential learning and child-initiated play in their daily schedule. The two types of curricula that were adopted and being used were a teacher-designed curriculum and a commercially published curricula.

Annie used a teacher-designed integrated curriculum organized around place-based projects. Ellen implemented a teacher-designed curriculum, which was focused on integrated units of study. Because Annie and Ellen primarily used a teacher-designed curriculum, they strived to provide ample time for both teacher-guided hands-on learning and child-initiated play in their daily schedule. Annie was able to maintain this commitment throughout the school year. Unfortunately, in the second semester Ellen had to decrease time for child-initiated play due to child assessments she needed to complete. Studies have revealed that a balance of teacher-guided play and child-initiated play resulted in opportunities for children to playfully learn more deeply about topics and concepts related to the curriculum (Christie, 1983; Galda, 1982; Isenberg & Quisenberry, 2002; Kamii, & DeVries, 1980).

Sheri and Kira shared that because they were mandated by their districts to follow a newly adopted scripted curricula in a lockstep manner, they implemented teacher-guided experiential learning; however, they had limited time and flexibility to include child-initiated play. Research (Bowdon, 2015) reveals that when schools used a scripted curriculum, school administrators were more likely to mandate teachers to spend a specific period of time on reading and math instruction, which then left little time for play.

Arranging and equipping the learning environment.

The results of the study suggested that teachers' pedagogical decisions about how to incorporate playful learning into the curriculum focused largely on developing and utilizing learning centers. All teachers elaborated how they arranged their indoor space into learning centers equipped with a variety of play equipment and materials to promote both teacher-guided and child-initiated play. As previously stated teachers incorporated teacher guided literacy centers and teacher-guided math centers daily. All teachers

also used teacher-guided learning centers for STEM activities. Some of the child-initiated play occurred in centers that focused on dramatic play, blocks, manipulatives, science, creative arts, music, storytelling, a sensory table. Depending on what was accessible, teachers varied in how they used their outdoor spaces for playful learning. All teachers had limited budgets thus, they sought donations from families, found materials at garage sales, or wrote mini-grants to equip centers and the classroom. Studies (Kostelnik et al., 2014; Miller & Almon, 2009; Trawick-Smith, 2005) reveal that well-designed and well-equipped learning centers that focused on children's interests and learning goals were common elements of a play-based curriculum.

Intentionally using play as an instructional strategy.

The results of this study appear to suggest that all teachers intentionally used play as an instructional strategy to support children's learning while aligning the curriculum with the standards. One teacher allowed her whole class to explore and play with a new set of LEGO before giving them specific instructions to form pairs with one another to build a moving vehicle out of LEGO as part of her STEM initiative. Another teacher used teacher-guided role-playing to demonstrate what buyers and sellers did; and then actively supported her students' growing understanding about these roles as they enacted them in their child-initiated dramatic play center. Another teacher had her students make stick puppets related to a popular children's story to enhance their storytelling and comprehensions skills. One of the teachers became a co-player in a dramatic play scenario to help a small group of children resolve an interpersonal conflict. Researchers have found that teachers' intentional pedagogical decision-making in using play as an instructional strategy were both desired and expected when aligning children's learning with standards (Epstein, 2007; Thomas, Warren, & de Vries, 2011).

Recognizing the tensions with playful learning and school expectations.

All teachers revealed that despite the research about the critical role of developmentally appropriate playful learning, they experienced tensions between their beliefs in play and DAP with school expectations

in the current climate of standards and accountability. Two teachers emphasized that more of their time and their students' time were used to complete formative and summative assessments. Three of the teachers raised concerns that a specific reading standard and a specific math standard placed a burden on certain children who were struggling to meet these standards. All teachers expressed that because CCSS were focused on language arts and mathematics they had concerns about the lack of attention to kindergartners' social and emotional needs. Research (Bowdon, 2015; Lynch, 2015; Miller & Almon, 2009; Minicozzi, 2016; Wohlwend, 2007, 2009) confirms that kindergarten teachers in the American public school system have been in a difficult place as they faced pressures to reconcile their beliefs about a developmental play-based approach in kindergarten with conflicting expectations from their schools and other teachers.

Teachers' perceptions of the power they have to make pedagogical decisions.

Two teachers, who were mandated to follow the scripted curriculum in a lockstep manner, found creative ways to incorporate a little more play and DAP into their daily schedule. Kira asked her principal if she could adjust the scripted language arts curriculum to better meet the needs of her struggling students. After her third meeting with the principal, she was given permission to modify the scripted curriculum. Kira creatively quickened the pace of the lessons to make room for more interactive language arts activities. Sheri discovered that she could sneak in more playful learning into her daily schedule when she did an engineering design lesson, where her students had to figure out how to balance a book on top of a tower constructed with paper cups. Her students really enjoyed this activity so she offered it as a choice during child-initiated play stations. Research (Wohlwend, 2007, 2009) found that teachers who perceive they have the power to reclaim their autonomy often use *tactics* (de Certeau, 1984), such as hybridity or innovation, to make good pedagogical decisions about their classroom practices. This allows teachers to hold on to their teaching beliefs, maintain cohesion with the rest of their colleagues, and meet broader school expectations.

External factors that empower teachers to incorporate play.

The results of the study appear to suggest that other external factors also influenced teachers' pedagogical decisions to incorporate playful learning into the curriculum or realm of learning activities.

Role of school principal as PK-3 instructional leader.

Results of this study highlighted that the school principal had a key instructional leadership role in supporting teachers' decisions to incorporate both child-initiated play and teacher-guided hands-on learning in kindergarten. The two teachers, who were primarily implementing a teacher-designed curriculum approach, attributed their ability to allow enough time for play in their curriculum to the leadership of their principals. They found their principals to be strong proponents of play who understood the tensions teachers faced when their teaching beliefs conflicted with school expectations. Researchers (Graue, 2010; Kostelnik & Grady, 2009; Minicozzi, 2016, NAESP, 2014) have shown that for PK-3 teachers to carry out effective teaching practices, they needed the leadership of supportive principals who were knowledgeable about the research behind the benefits of DAP and educational play in young children's learning.

Professional learning communities for teachers.

All teachers shared how having ongoing collaborative dialogue with colleagues and mentors, who had experience with teaching young children through a play-based curriculum, was a factor in how they implemented and sustained playful learning in their classrooms. In particular, two teachers valued the professional learning communities focused on student outcomes, that they were part of with other kindergarten teachers at their schools. One teacher revealed that the professional learning community on her grade-level, which had been together for a long time, had a significant role in her ability to incorporate playful learning in her kindergarten. She shared that this learning community helped all the teachers develop, implement, evaluate, and improve their play-based approaches and acted as an accountability group for trying innovative curricula ideas and instructional practices. Therefore, these teachers found it was

vital that they remained actively involved in communities of practice. Research about professional learning communities (Darling-Hammond & Richardson, 2009; Minicozzi, 2016; Wood & Bennett, 2000) affirmed that when teachers worked hard to collaboratively focus on students' learning, their students attained positive results.

Engaging families in playful learning.

Based on the results of this study, all of the teachers found it was necessary to establish positive relationships with families and use a variety of ways to communicate with families about how children's play and learning were interrelated. Teachers shared that they used home visits, parent orientation meetings, parent-child workshops, parent newsletters, and parent-teacher conferences as opportunities to educate families about how their children learn through play. They found these opportunities enabled the majority of their families to be more knowledgeable about how and why teachers were incorporating playful learning in kindergarten. A study (Bassok et al., 2016) uncovered that kindergarten teachers who utilized a play-based curriculum were sometimes pressured by families who expected more academics. Thus, establishing open lines of communication and taking time to educate families about the importance of playful learning supported the implementation of a play-based curriculum.

Prior to the results of this study, I had anticipated that there would be different mechanisms that influenced teachers' pedagogical decision-making, including external supports, such as those provided by the principal, colleagues, and families.

Implications

In this section I will present implications related to my research study on playful learning and the 21st century kindergarten for various role groups and key stakeholders, in particular, kindergarten teachers, principals, district and state leadership, and policy makers. Thereafter, I suggest research topics that may

serve to support the improvement of teacher education programs, and PK-3 education. Finally, I share what I have gained from conducting this research study.

Implications for kindergarten teachers.

The results of this study appear to indicate that teachers can incorporate a developmentally appropriate play-based approach in kindergarten and reclaim their power to support young learners in reaching rigorous academic standards, when they acquire a developmental approach to teaching kindergarten; study how to create or select, implement and evaluate a quality play-based curriculum model; develop a well-grounded philosophy of playful learning; and, establish an enriching learning environment.

A developmental approach to teaching kindergarten.

According to Institute of Medicine (IOM) & National Research Council (NRC) (2015), all early education professionals working in programs serving young children, infancy through third grade, who are striving to maintain high quality ECE programs, need a strong knowledge base on the science of child development and effective early learning practices or DAP (Copple & Bredekamp, 2009). This knowledge will help teachers gain a better understanding about kindergartners' unique phase of development; the interrelatedness of brain science, learning and play (Rushton et al., 2010); the major development and learning theories on how kindergartners learn; and, the influence of sociocultural and sociopolitical contexts on children's play (Charlesworth, 2014; Goldstein, 2016). An understanding of DAP will provide teachers with key guidelines on how to implement curriculum; establish a positive classroom community; structure the classroom; guide and assess children's learning; and, build partnerships with families (Copple et al., 2014). To acquire a sound developmental approach to teaching kindergarten, teachers would benefit from effective professional development that would improve their practices. Effective professional development (Darling-Hammond & Richardson, 2009) is job-embedded, coherent, intensive, sustained and taught through active learning processes. In addition, effective professional development means tightly linking the

information to the teachers' curriculum with a focus on student assessment data. Effective professional development could be established by school leadership who engage the expertise of early childhood or child development instructors from higher education institutions.

Select, implement and evaluate a kindergarten play-based curriculum model.

As the findings in this study have indicated, teaching no longer occurs only behind classroom doors. Therefore, after kindergarten teachers have acquired a sound developmental approach to teaching kindergarten, it would be beneficial for kindergarten teachers at each school to select and study a shared play-based curriculum model, and begin to implement and evaluate the model for one school year. A play-based curriculum model (Trawick-Smith (2005) is defined as a model where play is central to learning and teaching; covers the classroom curriculum, instruction and assessment; the arrangement of space in learning centers; a variety of indoor play equipment and materials; activities that support divergent thinking and creative expression; attention to safety; observation-based formative assessment; and a daily schedule that allows for children's active engagement with peers. A process for selecting, studying, implementing and evaluating a shared play-based curriculum model could be established through a grade-level study group (Wohlwend & Pepler, 2015) facilitated by an early childhood curriculum specialist. This teacher study group would be an "intellectual space" (Goldstein, 2007a, p. 52) for kindergarten teachers to come together to select or develop a curriculum that is relevant and meaningful to the needs of students and teachers (Aoki, 2011). Once the implementation of the curriculum begins, the teachers will be able to use this study group to share and reflect about the data from their observation-based formative assessments with one another; and apply this data to guide their instructional and curricular decisions through the rest of the school year.

Collective philosophy of playful learning.

For playful learning to become a core component of the kindergarten classrooms at each school, the kindergarten grade-level would benefit from establishing a well-grounded collective philosophy of playful

learning that is based on the developmental approach to teaching young children and effective playful learning curriculum, instruction and assessment. This collective philosophy of playful learning will help each teacher gain more confidence in trusting their inner power to make intentional pedagogical decisions (Epstein, 2007; Copple & Bredekamp, 2009) about how all children can engage in sustained, complex play in different areas of the curriculum (Graue, 2010). A collective philosophy of playful learning may be effectively formed through a kindergarten professional learning community (Darling-Hammond & Richardson, 2009) as teachers continue to incorporate the play-based curriculum model after the completion of the teacher study group. To start the formation of a collective philosophy of playful learning, each teacher will benefit from intentionally listening and observing children while engaged with playful learning; then recording their individual thoughts, impressions, feelings, and questions in a professional journal or digital recorder. Journal entries could then be shared and discussed within their learning community. This would provide teachers with opportunities to give and receive constructive feedback on how playful learning can become a core component of each of their classrooms. (Goldstein, 2016, Lynch, 2015; Minicozzi, 2016; Wohlwend, 2009; Wood & Bennett, 2000). With group accountability through a learning community, teachers will begin to solidify their shared thinking about how play and academic rigor go hand in hand (Wohlwend & Pepler, 2015), and address the clashing expectations and pressures from those who might be unfamiliar with the value of play (Graue, 2010; Jacobs & Crowley, 2010). In addition, this learning community would help teachers discuss and use *tactics* (de Certeau, 1984) that would reclaim their inner power to make intentional pedagogical decisions about how they can effectively incorporate playful learning in their classrooms. With a strong collective philosophy of playful learning, teachers will not only support one another, but also help other teachers, school leadership, and families understand the true value of playful learning and advocate for playful learning in their schools and communities.

Enriching play-based learning environments.

A developmentally appropriate play-based curriculum is supported by a well-designed and equipped learning environment, comprised of indoor and outside activity centers with a variety of quality furnishings, open-ended materials, and instructional tools (Graue, 2010; Jacobs & Crowley, 2010). Having interesting open-ended materials can enhance how children construct knowledge through direct experiences, including STEAM education, and how children can express their creativity through movement, art and music. Young children also need more opportunities to experience the outdoors and nature, through gardening, and well-designed playgrounds with ample space to move.

Implications for school principals.

The findings appear to indicate that PK-3 teachers are more likely to improve how they incorporate playful learning into their classroom practice when their principals become strong PK-3 instructional leaders. Thus, elementary school principals can support engaging and joyful learning in PK-3 education by, 1) enhancing their own knowledge about leading quality PK-3 education; 2) sharing decision-making that impact classroom practices with teachers; 3) establishing effective professional development and support for teachers; and, 4) learning about quality learning environments for PK-3 education.

Learning about leading quality PK-3 education.

The instructional leadership role of the principal is vital in leading high quality PK-3 education to improve the alignment between preschool and early elementary grades and establish overall positive outcomes for young learners (Stipek, Clements, Coburn, Franke, & Farran, 2017). Thus, for principals to enhance their knowledge and gain practical tools on how they lead high quality PK-3 learning communities, there are helpful resources for principals from the National Association for Elementary School Principals (NAESP, 2014) and ways for principals to network with other early childhood leaders in their communities. As principals strengthen their own knowledge about DAP, including how young children learn and develop

through play, they will be more effective in giving timely and targeted feedback to help teachers improve their classroom practice. Having a coherent understanding about how play can enhance all areas of the curriculum and be used as an instructional strategy (Ranz-Smith, 2007) will help principals articulate the benefits of playful learning and dispel the false dichotomies of work versus play or all rigor and no play (Kostelnik & Grady, 2009; Wohlwend & Pepler, 2015) when speaking to faculty, families, community members, and policy makers about DAP in PK-3 education.

Share curricular decision-making with teachers.

When principals give time and opportunities for kindergarten teachers to voice their concerns, including the tensions and pressures they feel, and be engaged in shared-decision making about curricula, instruction and assessments, teachers will feel that their voices matter (Rentner, Kober, & Frizzel, 2016). Principals and teachers would benefit from weighing the pros and cons of scripted curriculum programs against the needs of students and realities of how teachers would use these programs before making an investment. In addition, it is beneficial to know that teachers who strive to differentiate curriculum and instruction for individual students will end up making adjustments to a scripted curriculum program (Aoki, 1993, 2011, Duncan-Owen, 2009). Research found teachers feel empowered when they are asked to creatively problem-solve how the curriculum may effectively address the individual needs of children through play, modify standards to reflect scientific understanding of early education, and include standards that address social emotional learning (Bowdon, 2015; Copple et al., 2014; Kagan & Kaurez, 2006).

Effective professional development and support for PK-3 teachers.

Research (Duncan-Owen, 2009), has shown that commercially published curriculum programs are not necessary for high quality instruction, instead, all teachers will need effective job-embedded professional development and support, like mentoring, to improve how they can skillfully make multifaceted decisions when differentiating instruction for all students. Therefore, principals, whose goals are to support PK-3

teachers in improving their teaching practices, including how they incorporate a play-based approach, would benefit from establishing a combination of effective job-embedded professional development and trusting communities of practice (Darling-Hammond & Richardson, 2009) that is focused on the science of child development, DAP, and play-based curriculum approaches for PK-3 teachers. Early education experts who could provide effective professional development on PK-3 topics can be found in early childhood teacher education programs at Universities; state early learning offices; local affiliates of national early childhood professional associations and, through the national PK-3 initiatives. When these topics are provided through effective professional development, and through trusting communities of practice that address academic standards and assessment results and deal with individual students' learning goals (Darling-Hammond & Richardson, 2009; NAESP, 2014), then improvements in teaching practices will be impactful and long-lasting.

Quality well-designed and well-equipped learning environments.

To incorporate enriching play-based learning environments in PK-3 grades, principals will benefit from learning why quality well-designed and well-equipped indoor and outdoor learning environments matter to young children and their teachers (Jacobs & Crowley 2010; Copple et al., 2014). This would cover the importance of having access to safe, child-friendly outdoor playground spaces and where classrooms are placed on the school campus. One suggestion is for principals to visit schools and early education centers with quality learning environments, or read resources about quality learning environments. Another suggestion is for each principal or a group of principals in a complex area or district to form an advisory group made of PK-3 experts and teachers, to provide guidance on how to improve PK-3 learning environments. With this background knowledge, principals would be better able to support teachers by allocating more funding or redistributing funding from the school's budget for play-based learning

environments, requesting funding from the school's parent-school association or local foundations, and supporting teachers in applying for grants.

Implications for public school leadership and public policy makers.

The results of this study seem to suggest that school principals would benefit from their own job-embedded professional learning and support with other principals to enhance their competencies in leading PK-3 education; and that district and state administrators of public schools and policy makers would benefit from learning more about from the growing network of PK-3 reform initiatives, including how to improve kindergarten practices, in other states.

Supporting school principals in leading PK-3 reform.

The results of this study, specifically through the literature review, suggest that school principals would benefit from enhancing their competencies in leading PK-3 education (Goldstein, 2016; Graue, 2010; Kagan & Kaurez, 2006; Minicozzi, 2016; NAESP, 2014). Thus, district and state administrators of public schools could improve the continuity of quality learning experiences along the PK-3 continuum through effective professional development and support for school principals to strengthen how they lead effective PK-3 reform efforts. Effective professional development and collegial communities of practice with other principals can support school-level administration in leading PK-3 reform efforts to improve classroom practice, strengthen articulation, and sustain the early gains that children make when they first entered school. District and state leaders can seek the guidance of the NAESP (2014) to identify PK-3 experts, including other elementary school principals who have been successful in leading PK-3 reform. Topics could include the importance of closing the gaps along the PK-3 early learning continuum; how to ensure developmentally appropriate teaching; understand the types of effective assessments that can guide growth in student learning; and, how to build the professional capacity in their schools or districts for high quality PK-3.

Public policies for PK-3 reform.

The findings of this study appear to indicate that public schools can improve the quality and continuity of PK-3 educational continuum (Stipek et al., 2017); play-based environments (Stegelin, 2005); and reconcile play with academic assessment standards (Fromberg, 2015) through improved state-, district-, and school-level policies and practices. Thus, state and district policy makers, district and state boards of public education, state commissions of public charter schools, and state offices of early learning can, (a) advance PK-3 education by considering what other states are doing about PK-3 reform; (b) support quality play-based PK-3 classrooms by establishing clear guidelines on the effective selection or planning, implementation, and evaluation of curriculum and instruction; and, (c) improve how children's engagement in playful learning as a positive approach to learning can be measured using performance assessments in place of, or in addition to standardized testing. State and district policy makers can benefit from seeking the technical assistance and support from early childhood teacher education programs at higher education institutions, state early learning organizations, and national organizations, like Society for Research in Child Development (Stipek et al., 2017) and Education Commission of the States (ECS, 2016), who have been working with states to implement policies and practices to improve the alignment of high quality PK-3; and states, like New Jersey, who began its PK-3 reform with improvements to kindergarten practices.

Implication for future research.

A future research study could be a collaborative action research project to study how a year-long kindergarten teacher study group, facilitated by an early childhood curriculum specialist, might enhance teachers' confidence to advance children's learning through play through the implementation of a specific play-based curriculum model. This form of applied research would involve the teachers and curriculum specialist in the design of the research process, including how they can assist in collecting data of the study group sessions and in how they are implementing the play-based

curriculum. This research could uncover practical solutions to enhancing children's play in reaching standards. This type of collaborative, localized action research, including teachers' voices and experiences, may contribute to the existing literature, which has been largely researcher-directed.

Another exploratory research project might examine the instructional leadership role of a small group of principals who have been identified by their PK-3 teachers as being effective in enhancing the alignment between preschool through third grades, including the continuity of playful learning in the PK-3 continuum. Data can be collected through individual and focus group interviews with the principals and some of the PK-3 teachers. This type of study will provide principals and district and state policy makers with recommendations about how to support principals as they improve PK-3 alignment.

Further research as a teacher educator and early childhood specialist.

Currently, I am an early childhood teacher educator at a public university in Hawai'i that offers a dual-preparation undergraduate program for future professionals to teach PK-3 and kindergarten through sixth grade (K-6.) I teach two undergraduate courses, one on the science of child development and the other on foundations in early education. In addition, I work as a project specialist to provide technical assistance to enhance the early learning initiatives in Hawai'i DOE and the Guam DOE. In the Hawai'i DOE, I work closely with the state Executive Office on Early Learning's Director, the HI DOE early learning specialist, and state resource teachers in guiding the design, implementation and evaluation of effective professional development and support to school principals and teachers responsible for the growing public prekindergarten program that started in 2014. The following are three research projects that I am considering that relates to my dual role as teacher educator and early learning project specialist. I end this section with what I would do differently if I conducted this study again.

First, an extension of this study and related to my work as a teacher educator is to conduct research on how an early childhood education course in a teacher education program is being revised with a stronger

focus on the teacher's role in implementing effective play-based teaching practices and what the impact these improvements are making on future professionals' understanding about early childhood practices. The course improvements will be in the content, assignments and teaching strategies covering how to establish the learning environment, daily schedule, teaching strategies, use effective child guidance, and engage families to support play-based curriculum, instruction and assessments. The culminating assignment for future professionals will be individual mini-action research projects focused on play-based curriculum models in an early childhood classroom or program. The results of this study, may serve to strengthen the integration of play-based approaches in teacher education programs and improve the types of ongoing learning and reflective practices that can be integrated into existing ECE courses (Jung & Jin, 2014, 2015).

Another extension of this study could be a multi-year qualitative study to document the upgrades being made to an early childhood education (PK-3) teacher education program, and explore what, why and how these improvements are impacting the quality of the teaching practices of a cohort of future professionals. Specific improvements being made to the program entails tightening the coherence and integration of courses and between course and field work (Darling-Hammond, 2006), with a focus on how play as pedagogy is being taught and assessed. In addition, greater focus will be given to strengthening relationships with partnership schools who effectively serve diverse populations of students and develop and model developmentally appropriate play-based teaching. This would also include teaching future professionals how to evaluate and adapt commercially published curriculum to meet the needs of all students (Minicozzi, 2016); and the decision-making process of the future professionals in how to incorporate and reflect on different types of play activities in their field practice under the mentorship of their cooperating teachers (Jung & Jin, 2014, 2015). The study will follow the future professionals for two years after they exit from the teacher education program. This study would involve working collaboratively with the cohort's teacher educators and co-coordinators to collect data from course syllabi, meeting minutes,

surveys, and focus groups with faculty, cohort coordinators, future professionals, and cooperating teachers in partnership schools. The study could identify what new teachers need in their first couple of years of teaching in PK-3 classrooms to successfully implement playful learning. Teacher education programs would benefit from learning how to cultivate future professionals' theories and practices of playful learning approaches to match the complex realities they and their young students will face in the current educational landscape. The results of this study, may serve to improve early childhood teacher education programs.

A third extension of my work, relating to my role as a project specialist, is conducting a developmental evaluation of the ongoing development of a high-quality play-based state prekindergarten (PK) program. One specific area would be to determine the effectiveness of the professional development and professional support structures that are being implemented in the PK program. This evaluation would entail creating a logic model of the program, forming and activating an evaluation workgroup, and collecting and analyzing real-time data through surveys, interviews, documents, to assess the impact of the professional development and support sessions on teachers, principals and resource teachers. This will be useful as the state PK program expands its reach to more communities.

If I were to conduct this research study again, I would include classroom observations of each teacher and their students engaged in playful learning as another primary source of data in exploring how each kindergarten teacher incorporated playful learning in their standards-based classrooms. Observations would reveal how reliable teachers' beliefs were about playful learning and how grounded in practice were their philosophies of play. In addition, observations would help me better understand the play contexts of the kindergarten classrooms, the interactions between teacher and students, and the instructional strategies that were being used to help children develop their play skills. Observations would uncover how playful learning was incorporated into different areas of the curriculum and would have improved the triangulation of the data while providing more robust data for my study.

What I have learned.

I am inspired by the dedication, courage, and resourcefulness of the four public kindergarten teachers in my study who are striving to incorporate playful learning in their teaching practices in this climate of standards and accountability. Through their perspectives, I have gained a deeper understanding about how various mechanisms enabled them to honor children's ways of knowing and use play to meet the holistic needs of children, while giving me a glimpse of the ecological system approach that is needed to improve kindergarten and PK-3 policies and practices.

I have learned that having an individual philosophical belief about how kindergarteners learn best through play is vital, but it is not enough. With the disappearance of play in kindergarten, I have found that teachers with this belief system need ongoing effective preservice and in-service professional development and trusting learning communities to reclaim their collective power to make good instructional decisions about how to incorporate playful learning in their classrooms and schools.

I have gained a clearer understanding on how school principals can grow in their role as instructional leaders in supporting teachers to incorporate developmentally appropriate play-based approaches in PK-3 classrooms. Based on the literature in this study (Minicozzi, 2016; NAESP, 2014; Stipek et al., 2017), principals will benefit from effective professional development and support to become strong PK-3 instructional leaders. They, in turn, will need backing from their district and state educational leaders. Furthermore, I have learned how district and state educational leaders will benefit from joining other states and connect with national early learning organizations, like, the Society for Research in Child Development (Stipek et al., 2017) and Education Commission of the States (ECS, 2016), to work with state policy makers to improve our state public school system through PK-3 reform.

I have expanded my insights about how teacher education programs may be strengthened to better prepare future professionals to be intentional in using play as pedagogy in all areas of the curriculum by

improving the coherency of course work and integrating course work with field practicums in partnership schools that model quality teaching (Darling-Hammond, 2006; Jung & Jin, 2014, 2015; Minicozzi, 2016).

Finally, from the four teachers in my study I have been reminded about not losing sight of the significant and tireless role of teachers, especially the critical relationship they have with young children and the impact they have in their lives, in my own professional role as a teacher educator and advocate in building an effective ECE workforce system.

Conclusion

If Americans desire a globally recognized ECE system for all young children, from birth through age 8, then we need to collectively help ECE professionals, school leaders, policy makers and teacher educators develop and implement evidence-based practices and policies, including playful learning, that are beneficial to our children's success in school and in life. According to Miller & Almon (2009),

The power of play as the engine of learning in early childhood and as a vital force for young children's physical, social, and emotional development is beyond question. Children in play-based kindergarten have a double advantage over those who are denied play: they end up equally good or better at reading and other intellectual skills, and they are more likely to become well-adjusted healthy people. Every child deserves a chance to grow and learn in a play-based, experiential preschool and kindergarten. Play works. (p. 6)

Through a high quality playful learning early educational system in America, all children's natural curiosity, joy for learning, intellectual and social-emotional risk taking, and motivation and passion as 21st century thinkers and doers will be cultivated and sustained. If we do this, there will be a greater chance that our children will be able to develop and use their innovative, creative, empathetic and collaborative skills to resolve the highly complex problems we will face in the future.

Appendix A: Recruitment Letter

Sample recruitment message sent by email

Date:

Dear _____,

My name is Theresa 'Terry' Lock and I am a doctoral student with the College of Education at the University of Hawai'i at Mānoa. I am conducting a research study entitled: *In Defense of Play: Addressing Kindergarten Standards through Playful Learning*.

The purpose of my study is to explore what kindergarten teachers on Oahu believe about playful learning and how they are using a developmentally appropriate play-based curriculum to address educational standards.

For this study, I am recruiting participants who meet the following criteria: 1) are current kindergarten teachers who reside on Oahu; 2) was mandated to meet kindergarten educational standards in school year 2015-2016; and, 3) have been using a developmentally appropriate play-based curriculum with kindergarteners.

Your name was given to me by _____ who thought you might meet the selection criteria and be interested in this research project.

My research will involve five participants. I will be collecting data through: 1) a one-to-one 60-minute in-person interview with each participant in early June 2016; 2) one 90- minute focus group in early August 2016 with all participants; and 3) review of teacher selected classroom instructional lesson plans, student work samples and/or other artifacts.

Participation in this study will help to recognize you, kindergarteners and the role of play in kindergarten; and influence how other teachers could reexamine and enhance their teaching practices.

Please contact me if you are interested in participating in this study or have questions about this study. You can reach me at ~~808-236-2049~~ or terrylock@hawaii.edu

Mahalo nui,

Terry Lock

Appendix B: University Human Studies Approval



UNIVERSITY
of HAWAII®
MĀNOA

Office of Research Compliance
Human Studies Program

April 15, 2016

TO: Theresa Lock
Steven Shiraki, Ph.D.
Principal Investigators
College of Education

FROM: Denise A. Lin-DeShetler, MPH, MA
Director

A handwritten signature in black ink, appearing to read 'Denise A. Lin-DeShetler'.

SUBJECT: CHS #23913 - "In Defense of Play: Addressing Kindergarten Standards Through Playful Learning"

This letter is your record of the Human Studies Program approval of this study as exempt.

On April 15, 2016, the University of Hawai'i (UH) Human Studies Program approved this study as exempt from federal regulations pertaining to the protection of human research participants. The authority for the exemption applicable to your study is documented in the Code of Federal Regulations at 45 CFR 46.101(b) (Category 2).

Exempt studies are subject to the ethical principles articulated in The Belmont Report, found at <http://www.hawaii.edu/irb/html/manual/appendices/A/belmont.html>

Exempt studies do not require regular continuing review by the Human Studies Program. However, if you propose to modify your study, you must receive approval from the Human Studies Program prior to implementing any changes. You can submit your proposed changes via email at uhirb@hawaii.edu. (The subject line should read: Exempt Study Modification.) The Human Studies Program may review the exempt status at that time and request an application for approval as non-exempt research.

In order to protect the confidentiality of research participants, we encourage you to destroy private information which can be linked to the identities of individuals as soon as it is reasonable to do so. Signed consent forms, as applicable to your study, should be maintained for at least the duration of your project.

This approval does not expire. However, please notify the Human Studies Program when your study is complete. Upon notification, we will close our files pertaining to your study.

If you have any questions relating to the protection of human research participants, please contact the Human Studies Program at 956-5007 or uhirb@hawaii.edu. We wish you success in carrying out your research project.

1960 East-West Road
Biomedical Sciences Building B104
Honolulu, Hawai'i 96822
Telephone: (808) 956-5007
Fax: (808) 956-8683

An Equal Opportunity/Affirmative Action Institution

Appendix C: State Department of Education Approval

DAVID Y. IGE
GOVERNOR



KATHRYN S. MATAYOSHI
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

May 2, 2016

Ms. Theresa Lock
1200 Queen Emma St., #907
Honolulu, HI 96813

Re: Research Application Decision

Dear Ms. *Terry* Lock:

I am pleased to approve your Hawaii State Department of Education (HIDOE) research application for the study "In Defense of Play: Meeting Kindergarten Standards through Playful Learning" (Application #RES2016009).

This approval will expire October 31, 2016. If you require additional time to complete your study, you must submit a request for an extension or another application before this approval expires. If you intend to make changes to your project you must submit the change request to the Data Governance and Analysis Branch prior to implementing the change. These changes include but are not limited to (1) any changes that require approval from your Institutional Review Board and (2) any changes that are in conflict with or not included in this approval letter. Significant changes may need to be reviewed by the Research Review Committee at their next scheduled meeting. If changes are approved, a modified approval letter will issued to the researcher, the targeted schools, and affiliated state/district office staff.

As described in your application, the objective of your study is:

- To conduct the "In Defense of Play: Meeting Kindergarten Standards through Playful Learning" Project, which will examine the beliefs kindergarten teachers on O'ahu have about playful learning and observe how they are using a developmentally appropriate play-based curriculum to address educational standards.

You have indicated that you will be inviting 10 HIDOE schools to participate in your study (see Attachment 1).

You have also indicated that you will be inviting Hawaii Public Charter Schools to participate. We encourage you to contact the State Public Charter School Commission directly about Hawaii Charter School participation.

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You must present this letter to the appropriate HIDOE administrator(s) upon invitation to participate in your research.

You have also indicated that you will be inviting the following individuals at these targeted schools to participate in your study:

- Five (5) Kindergarten teachers on Oahu.

Teachers who participate in your study will be involved in the following activities:

1. Five (5) one-on-one individual interviews, 60 minutes each;
2. One (1) focus group interview, 90minutes;

You will also collect the following data about the Kindergarten teacher participants:

1. Lesson plans, student work samples;
2. Observational journal (done by the researcher)

As you proceed with your study, please be aware of the following:

- Since your study will involve observations of participating teachers, all individuals involved in conducting these observations must review and sign the “Affirmation Form for Observations Conducted in the Hawaii State Department of Education” and present a signed copy of this form to the principal to each school at which teacher observations will occur prior to conducting the observations. See Attachment 2.
- The participation of HIDOE schools, offices, students, and personnel in your study is strictly voluntary.
- All study activities must take place at dates, times, and locations agreed upon by the administrators of the participating HIDOE schools and offices.
- Any compensation provided to HIDOE personnel for participation in your study must be for activities completed outside of instructional and work hours and must be in compliance with the Hawaii State Ethics Code. Any questions about this topic should be referred to the Data Governance and Analysis Branch.
- You are required to conduct your study in accordance with both the conditions of approval described in this letter and the document “Affirmation and Acknowledgement of the Processes, Procedures, and Conditions for Conducting Research in the Hawaii State Department of Education” (the “Affirmation Form for Researchers”). See Attachment 3.
- You are responsible for ensuring that all individuals involved in this study — both those affiliated with your organization and those contracted by your organization and affiliated with external entities or vendors — adhere to all of the conditions of my approval, including those detailed in this letter and those stipulated by the Affirmation Form for Researchers.

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Per request from the Research Review Committee:

- It would be greatly beneficial to HIDOE if customized feedback reports could be provided to the individual schools that participate in the study in addition to the more general reports/presentations that you will submit about the project as a whole.

Should you have any questions about the above, please contact Ke'ala Fukuda, HIDOE Data Governance and Analysis Branch, at DOEresearch@notes.k12.hi.us or (808) 784-6061.

Best wishes for a successful study. We look forward to receiving your findings and recommendations.

Very truly yours,



Kathryn S. Matayoshi
Superintendent

KSM:bk

Attachment 1: School List

Attachment 2: Affirmation Form for Observations Conducted in the Hawaii State Department of Education

Attachment 3: Affirmation and Acknowledgement of the Procedures and Conditions for Conducting Research in the Hawaii State Department of Education

c: Data Governance and Analysis Branch

Appendix D: Participant Consent Form

University of Hawai'i

Consent to Participate in Research Project:

In Defense of Play: Addressing Kindergarten Standards through Playful Learning

My name is Theresa 'Terry' Lock. I am a doctoral student at the University of Hawai'i at Mānoa in the College of Education. As part of the requirements for earning my doctoral degree, I am doing a research study. The purpose of my study is to explore what kindergarten teachers on Oahu believe about playful learning and how they are using a developmentally appropriate play-based curriculum to address educational standards. I am asking you to participate because you fit my study participant selection criteria.

Activities and Time Commitment:

If you participate in this study, I will meet with you for a one-to-one interview preferably at your classroom during non-instructional time or a location and time convenient for you. I will ask you to bring two lesson plans and two examples of student work from the past 2015-2016 school year related to addressing kindergarten literacy and mathematics standards, to the interview. Prior to coming to the interview, please redact all student information from the documents and artifacts you provide. The interview will consist of 9 open ended questions. It will take about an hour. The interview questions will focus on how you use play to address specific educational standards; the factors that have allowed or not allowed you to use a play-based curriculum; and how you have overcome challenges in using a play-based curriculum.

Only you and I will be present during the interview. I will audio-record the interview so that I can later transcribe the interview and analyze the responses. You will be one of five people whom I will interview for this study.

Next, I will meet you for a focus group interview with all five participants in this study. This will be at a location and time convenient for all of you. Prior to the focus group interview, I will ask you to bring an artifact that represents your commitment to play in kindergarten. The focus group interview will consist of 6 open-ended questions. It will take about an hour and a half. The focus group interview will include questions about a specific example of how play helped your student(s) reach educational standards; how you organize space, materials and time for play in kindergarten; and, how you support children's higher order thinking through play.

Participants may be asked to respond to additional follow-up questions over email for 15- to 20-minutes.

Benefits and Risks:

There will be no direct benefit to you for participating in this interview. The results of this project may help improve the teaching practices of other kindergarten teachers and other early childhood and elementary teachers to benefit future students. You may become stressed or uncomfortable answering any of the interview questions or discussing topics with me during the interview. If you do become stressed or uncomfortable, you can skip the question or take a break. You can also stop the interview or you can withdraw from the project altogether.

Privacy and Confidentiality:

I will keep all audio-recordings, transcripts, notes and artifacts in a safe place. Only my University of Hawai'i at Mānoa advisor and I will have access to the information. Other agencies that have legal permission have the right to review research records. The University of Hawai'i Human Studies Program and other agencies that have legal permission have the right to review research records for this study. In the transcripts and other documents, I will code identities to ensure confidentiality. At the conclusion of the study, I will return documents and artifacts back to the participants, and destroy the audio-recordings, transcripts and notes. When I report the results of my research project, I will not use your name. I will not use any other personal identifying information that can identify you. I will use pseudonyms (fake names) and report findings in a way that protects your privacy and confidentiality to the extent allowed by law.

Voluntary Participation:

Your participation in this project is completely voluntary. You may stop participating at any time. If you stop being in the study, there will be no penalty or loss to you. Your choice to participate or not participate will not affect your rights to services at the University of Hawai'i Mānoa College of Education.

You will receive a \$5 gift certificate to either Starbucks or Jamba Juice for your time and effort in participating in this research project.

Questions:

If you have any questions about this study, please call or email me, Terry Lock, at ~~808.956.3333~~ or ~~lockt@hawaii.edu~~. You may also contact my adviser, Dr. Steve Shiraki, at ~~808.956.3333~~ or ~~shirakis@hawaii.edu~~. If you have questions about your rights as a research participant, you may contact the UH Human Studies Program at 808.956.5007 or uhirb@hawaii.edu.

If you agree to participate in this project, please sign and date this signature page and return it to me.

Please keep the section above for your records.

If you consent to be in this research study, please sign the signature section below and return it to me.
Theresa 'Terry' Lock.

Tear or cut here

Signature(s) for Consent:

I give permission to join the research project entitled, *In Defense of Play: Addressing Kindergarten Standards through the Playful Learning*

Please initial next to either "Yes" or "No" to the following:

Yes No I consent to be audio-recorded for the individual interview portion and the focus group interview portion of this research study.

Yes No I give permission to allow the investigator to use my real name to be used for the publication of this research.

Name of Participant (Print): _____

Participant's Signature: _____

Date: _____

Signature of the Person Obtaining Consent: _____

Date: _____

Appendix E: Individual Interview Protocol

In Defense of Play: Addressing Kindergarten Standards through Playful Learning

Guide for Individual Interview

Thank you for joining me today. During this interview we will be discussing your beliefs about playful learning and how you are using a developmentally appropriate play-based curriculum to address educational standards. This interview will take about 60 minutes. During the interview I'll be asking you to share your two lesson plans and two samples of student work.

1. Describe the children and families you serve.
2. Explain your curriculum for kindergartners.
3. What are your perspectives on play and educational standards?
4. How have you used play to address educational standards?
5. Describe a literacy lesson plan where you used play to address standards. Tell me about a related student work sample.
6. Describe a mathematics lesson plan where you used play to address standards. Tell me about a related student work sample.
7. What factors have enabled you to use a play-based curriculum to address standards?
8. How have you overcome the challenges of implementing a play-based curriculum?
9. What else can you share about play, kindergarten and standards?

Sample Questions for Second Individual Interview

1. Tell me about your classroom daily schedule:
2. Describe the afternoon learning centers?
3. How do you use the indoor and outdoor space for play?
4. What are some of the typical play equipment and materials you use?
5. Do you combine literacy, art, science, technology? Please describe.
6. How do you see play helping kids with problem solving?
7. How is play incorporated in your different curriculum areas?
8. What other thoughts do you have regarding play, standards, kindergarten?

Appendix F: Focus Group Interview Protocol

In Defense of Play: Addressing Kindergarten Standards through Playful Learning

Guide for Focus Group Interview

Thank you for joining me today. During this focus group we will be discussing what you believe about playful learning and how you are using a developmentally appropriate play-based curriculum to address standards. After about 40 minutes and when there is a natural pause between questions or responses, we will take a 10 minute break, then continue for another 40 minutes.

1. Please explain what your artifact is, and how your artifact represents why you are committed to play in kindergarten.
2. Describe an example of how play helped your student(s) reach an educational standard.
3. How do you organize space, materials and time for play in kindergarten?
4. Describe how school leadership and families influence your implementation of a play-based curriculum.
5. How do you support children's higher order thinking through play?
6. How do you support children's engagement in learning through play?
7. What advice would you give to other teachers that would inspire them to nurture children's sense of wonder and joy in learning?

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