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The Value of Play-Based Learning in Early Childhood Classrooms

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Northwestern College

A Literature Review Presented

in Partial Fulfillment of the Requirements

For the Degree of Master of Education

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Abstract

The purpose of this literature review is to demonstrate the value of play-based learning in early childhood classrooms and encourage educators and policy-makers to focus more on this developmentally appropriate practice of learning through play in early childhood classrooms. The findings of this literature review are that play is an essential component in all areas of child development. The reviewed research suggests play and academic and social development are closely linked and indicate success in the areas of 21st century skills, literacy and language, and STEM (science, technology, engineering, and mathematics) education. The conclusion of this review includes recommendations for implementation of play-based learning and how it can work alongside intentional teaching practices to provide a well-rounded education to students in early childhood classrooms.

Keywords: Play-based learning, early childhood classrooms, social-emotional learning

The Value of Play-Based Learning in Early Childhood Classrooms

For many years, educational theorists, including notable influential scholars such as Piaget, Vygotsky, Dewey, Froebel, and Rousseau (Thomas, Warren & deVries, 2011), have been discussing and debating the best approaches to learning. When it comes to learning in early childhood, the overall consensus is children learn best through exploring their world and play. Rousseau thought of education as a natural occurrence (Rousseau, 1762), Dewey believed play fostered learning (Dewey, 1932), Piaget preached play was integral to the learning of young children (Piaget, 1929), Vygotsky believed play promotes all aspects of childhood development (Vygotsky, 1929), and Froebel stated play is the highest expression of human development in childhood (Froebel, 1896). The problem is, in an age of standardized tests and glorification of rigorous academic settings, there appears to be a steady decline of classrooms in which children are encouraged to learn through play (Gray, 2011; Lynch, 2015; Nicholson, Bauer & Woolley, 2016; Henricks, 2016) , but “replacing play...with teacher-directed activities does not improve test scores, and, at the same time, has a negative effect on children’s well-being” (Bodrova & Leong, 2019)

For this literature review, research has been conducted to understand the numerous benefits of play-based learning and why it is important to protect playtime in early childhood classrooms. This research aimed to answer these two questions - what are the social and academic benefits to play-based learning in early childhood classrooms? Can play-based learning work effectively alongside intentional teaching practices, with intentional teaching being thought of as an active process where educators are “thoughtful, purposeful and deliberate in their decisions and actions” (Queensland Curriculum & Assessment Authority, 2018)?

The purpose of this literature review is to demonstrate the value of play-based learning in early childhood classrooms and encourage educators and policymakers to focus more on this developmentally appropriate practice of learning through play in early childhood classrooms. For the purpose of this review, the historical play theories of scholars such as Piaget (1929), Vygotsky (1929), Dewey (1932), Froebel (1896), and Rousseau (1762), as well as how these scholars' theoretical frameworks are still relevant in classrooms today, were examined. Research articles were found via online academic databases using search terms such as 'play theories', 'intentional teaching and play', and 'play and learning'. The studies reviewed range in publication years from 2011 through 2021.

Literature suggests play and academic and social development are closely linked, yet many still oppose a focus of play in the classroom, expressing concern there is not enough time spent on academics which in turn does not prepare children for older grades and the standards needed to be met. This literature review will examine the findings related to the value of play in early childhood classrooms. The research includes the social and academic benefits of play-based learning, focusing on its relation to subtopics such as 21st century skills, literacy and language, and how play-based learning aligns with STEM (science, technology, engineering, and mathematics) education. The logistical implementation of play-based learning and how it can work alongside intentional teaching practices to provide a well-rounded education to students in early childhood classrooms will be addressed, as well as arguments against play-based learning and why it is becoming less prevalent in early childhood classrooms.

Play-based, hands-on learning should be the primary practice in early childhood classrooms because it is the most appropriate way young children learn and provides opportunities for young children to grow academically and socially. Play allows children to learn

and practice conflict resolution as they interact with peers learning to work cooperatively on common tasks (Myck-Wayne, 2010). “Play in the classroom fosters improvements in such subjects as mathematics, language, early literacy, and social-emotional skills, and it does so for children from both low- and higher-income environments” (Lynch, 2015, p. 384). In order to debunk the perspective play is ‘just for fun,’ and is truly serious learning, this literature review will synthesize research on the academic and social values of play-based learning.

Review of Literature

Learning Through Play

Play has been a widely discussed topic in early childhood education throughout history. Dating back to 1896, German educational theorist Friedrich Froebel shared his thoughts on how play was the highest expression of human development in childhood. Later, in 1929, Piaget and Vygotsky shared their views on play and learning. Piaget preached play was integral to the learning of young children, and Vygotsky believed play promoted all aspects of childhood development (Nilsson, Ferholt, & Lecusay., 2018; Kane, 2016; Bodrova, Germeroth, & Leong, 2013). These educational theorists, and others such as Dewey, Froebel, and Rousseau, shared their ideas of the importance of young children learning through play and exploration (Thomas, Warren & deVries, 2011). These ideals of learning through play in early childhood have stood the test of time and are still very relevant today. As reported by researcher Myck-Wayne (2010), “Researchers Bodrova and Leong (2003) indicate play enhances learning through the development of comprehension, attention span, curiosity, empathy, concentration, and group participation. Furthermore, pretend play has been connected to academic content in literacy and numeracy (Roskos & Christie, 2000)” (p. 18). According to the literature reviewed, play increases academic development and boosts creative thinking and problem-solving, providing a highly

effective context for learning and honing much-needed 21st century skills (Wickstrom, Pyle, & DeLuca, 2019; Kane, 2016; Lynch, 2015; Myck-Wayne, 2010).

Play and learning have often been dichotomized, seen as separate entities with ‘play’ occurring outdoors or at home, and ‘learning’ being considered as participation in formal, teacher-led activities, (Nilsson, Ferholt, Lecusay, 2018) but this does not have to be, and should not be, the case in early childhood education. The results of numerous play-based learning studies show children who are able to interact with the world and materials as an avenue of learning demonstrate greater growth in social-emotional and academic domains compared to peers who received only teacher-led direct instruction (Hesterman & Targowska, 2020; Duch, Marti, Wu, Snow, & Garcia, 2019; Wickstrom, Pyle, & DeLuca, 2019; Stagnitti, Bailey, Hudspeth Stevenson, Reynolds, & Kidd, 2016; Thomas, Warren, & deVries, 2011). One such study by Stagnitti, et al. (2016) addressed the positive effects of play-based instruction in the domain of oral language and literacy skills. This study found “in comparison to the children attending the mainstream schools, the children attending the play-based school showed significantly greater growth across the first 6 months of school in their narrative skills” (Stagnitti, et al., 2016, p. 400). Data analysis also noted the likelihood of “significant improvements in grammar, narrative and non-verbal ability was greater in the children attending the play-based school in comparison to the mainstream school,” (Stagnitti, et al., 2016, p. 401) providing evidence a play-based approach leads to greater growth in academic domains compared to children who attend school with primarily teacher directed lessons.

Another example of play-based learning yielding higher academic growth than teacher-directed instruction is Wickstrom, Pyle, and DeLuca’s (2019) study of twenty kindergarten classrooms to understand current pedagogies teachers use for mathematics, specifically looking

at classrooms which promoted play as the dominant pedagogical approach. This study analyzed observational data from the twenty kindergarten classrooms, yielding 160 instances of mathematical learning. Of those 160 instances, 71% were teaching through play-based learning and 29% were teaching via direct teacher instruction, indicating educators primarily used play as the learning context to support math learning (Wickstrom, Pyle, & DeLuca, 2019). The results of this study showed the open-ended and child-directed avenue of learning through play supported children's overall mathematical ideas, skills, and reasoning, specifically supporting children's counting and comparison abilities, spatial reasoning, and geometric knowledge.

In an additional study, Hesterman and Targowska (2020) used a qualitative approach to learn about teachers' perspectives of play-based practices. Results showed play facilitated the integration of language, socioemotional, physical and creative learning while actively engaging students' minds and encouraging executive functions. Teacher participants involved in said study addressed the differences in student engagement and achievement when implementing play-based learning compared to traditional teacher-directed learning, noting an increase in student responsiveness, perseverance, enthusiasm and engagement in all content areas when students were engaged in play-based learning.

Finally, regarding demonstration of social-emotional growth, a study by Duch et al. (2019) found an almost perfect level of agreement among participants, with a Kappa coefficient of .98, that a play-based intervention to promote social-emotional development in preschoolers increased school readiness, such as readiness regarding academic content as well as social behaviors. This study also determined there were very strong levels of agreement, with Kappa coefficient scores between .80 and .90, that play-based learning significantly increased self-regulation, social skills, language and communication, and independence (Duch et al., 2019).

Taking the results of these studies into account, teachers should capitalize on this data which proves learning through play is beneficial for young children.

Social-Emotional Benefits of Play

Play has a plethora of social and emotional benefits. In addition to making young children happy, play “nourishes every aspect of children’s development and it forms the foundation of intellectual, social, physical and emotional skills necessary for success in school and in life” (Chrysa Pui & Cheung, 2019, p. 628). Social-emotional skills include the demonstration of abilities such as managing emotions, self-awareness, social awareness, relationship skills, and responsible decision-making. Regarding the specific area within social-emotional skills of self-management, students have shown better executive functioning skills and better emotion regulation, as well as less stress and decreases in problem behaviors, when provided ample opportunities for play (Lynch, 2015; Weisberg, Hirsh-Pasek & Golinkoff, 2013).

It is important educators teach children to play because play “is flexible and can be used in multiple settings, sets the occasions to having social and communicative interactions with peers, increases the likelihood of learning in natural settings, and may offer a foundation for developing leisure skills” (Myck-Wayne, 2010, p. 17). As stated by Lynch (2015), “The research increasingly shows that play expedites a variety of social, cognitive, motor, and linguistic improvements.” The researcher also mentions, “social play allows children to become more creative and more adept at explaining meaning verbally, more successful at manipulating different symbol systems, and more confident when experimenting with new activities.” Social-emotional skills help children in all aspects of life, both socially and academically, and prepare them for their future learning and life endeavors. Teaching social emotional skills is an integral part of early childhood education, and is best taught through play.

In a social-emotional play study, conducted by Siew and Bull (2018), a qualitative analysis of observations across six preschool classrooms found that more opportunities for social emotional learning occurred most often during play time versus mealtimes, transitions, and whole group learning. During this study, researchers looked for the impact of group size, activity type, and type of teaching opportunity. Unsurprisingly, the research found small group activities were also a prevalent situation in which a lot of social emotional learning occurred. Small groups allow for more child-directed activities than whole or large groups, and they also provide “more opportunities for creative play and peer involvement that may bring about less positive peer interactions, such as disagreements or conflicts” (Siew & Bull, 2018, p. 347).

Developmental psychologist, Lev Vygotsky, indicated play assists in the development of higher capacities of self-control. Through his research, he found children demonstrated strong desires to continue play scenarios which lead them to accept restrictions on their behavior they would not typically accept in real life (Gray, 2011). Data from Hesterman & Targowska’s 2020 qualitative study echoed Vygotsky’s views on the role of play regarding children’s social-emotional development. The researchers shared observational data which found children attending play-based learning programs were able to quickly form friendships and have a sense of belonging, showed more social awareness, gained independence, and demonstrated resilience. Moreover, the research of Duch, et. Al (2019) found play was important for a child’s social development and had benefits on their relationships with others. In this study, the play-based approach increased self-regulation, social skills with peers, improved language and communication skills, and increased security and independence. Independence, resiliency, flexibility, teamwork, and communication are all important 21st century skills. In order to prepare

children as learners in the 21st century, there is a need to develop the whole child, which is best achieved through a play-based approach.

Academic Benefits of Play

In addition to the many social and emotional benefits of play, there are also numerous academic benefits of play. According to researchers Weisberg, Hirsh-Pasek, and Golinkoff, (2013) “Guided play approaches are effective because they create learning situations that encourage children to become active and engaged partners in the learning process.” These researchers go on to say, “when specifically considering academic outcomes, many findings support the claim that preschoolers who engage in playful learning either match or outperform those who learn through direct instruction” (Weisberg, Hirsh-Pasek, & Golinkoff, 2013, p. 105). Play fosters improvement in multiple academic areas, providing an opportunity for students to internalize and further explore academic concepts and skills (Pyle & Bigelow, 2015; Lynch, 2015). The research indicates play is beneficial not only for social-emotional skills, but in various academic domains as well.

Language and Literacy

One specific academic domain which is positively impacted by play is that of language acquisition and early literacy. To become proficient readers, children must learn tens of thousands of words by middle school (Dickinson & Porche, 2011). In order to provide children the jumpstart they need to become proficient readers, researchers Dickinson and Porche (2011) say, “High-quality preschool experiences are known to foster language and early reading, and early reading skill heavily determines children’s later success. Studies have found early literacy, language development skills, and higher cognitive skills such as abstract thinking and

perspective taking emerge through play. Embedding literacy materials in children's play also facilitates the development of early literacy skills (Kane, 2016).

A 2016 study of the effect of play-based instruction on the development of play skills and oral language by researcher Stagnitti and team indicated, "learning through the medium of play during the first year of elementary school leads to greater growth in linguistic knowledge than learning in a traditional classroom environment through direct, didactic instruction." The results showed over the course of the six-month study, children in the play-based group significantly improved on all measures, whereas the children in the traditional group did not. In addition to improving play skills and narrative language ability, the play-based curriculum also had a positive influence on the acquisition of grammar.

Another play and literacy study, by Han, Moore, Vukelich, and Buell (2010), examined how to enhance young children's vocabulary development and how to improve learning through play by dividing the children involved in the study into two groups: one using direct instruction only and another using a play-based learning approach. According to the literature, "The results of this study showed that the children who received the vocabulary teaching protocol that included play showed more growth on receptive and expressive vocabulary measures. This group of children also met benchmark on receptive vocabulary and showed steeper growth trajectory on the curriculum-based measurement tool" (Han, Moore, Vukelich, & Buell, 2010).

An additional play-based learning study looked at the effects of literacy-rich sociodramatic guided play on kindergarten student literacy performance and behavior and found "students instructed through the experimental condition scored significantly better on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment with a medium effect size," (Cavanaugh, Clemence, Teale, Rule, & Montgomery, 2017) with the 'experimental

condition' being that students received literacy instruction with a supplemental fifteen minute block of time designated for play-based literacy integration during which the intervention took place. According to the literature, students who participated in this study not only showed significantly higher literacy scores on standardized tests, but students also expressed they enjoyed the activities more than the traditional, teacher-directed instruction they had previously been used to receiving. These researchers also shared additional positive academic results included practice in story-composing, sequencing ideas into a complex cause and effect chain of events; application of new vocabulary; repeated practice of phonics and phonemic awareness skills to new examples; self-regulation of emotions; communication and negotiation with peers; and imagination, fantasy, humor, and creativity (Cavanaugh, Clemence, Teale, Rule, & Montgomery, 2017).

One particular 2011 study by Dickinson and Porche also showed play in early childhood not only improves language and literacy skills in children while they are in the preschool or kindergarten program, but there are lasting positive effects as well. This study looked at the indirect effects of preschool classroom indexes of teacher talk tested on fourth-grade outcomes in reading and discovered "fourth-grade vocabulary was related to correcting and analytic talk during book reading and kindergarten vocabulary mediated both preschool classroom effects" (Dickinson & Porche, 2011). They also discovered "teacher use of sophisticated vocabulary contributed to prediction of two of the Grade 4 assessments and it had specific indirect effects on comprehension operating through kindergarten emergent literacy, as well as on decoding operating through kindergarten vocabulary skill" (Dickinson & Porche, 2011). By synthesizing the literature, it is evident play-based learning enhances young children's language and literacy skills. Language, vocabulary, and grammar acquisition, as well as decoding skills, the

understanding of cause and effect in literature, and literary creativity are all beneficial outcomes of play in early childhood.

STEM

Language and literacy are not the only domains which benefit from learning through play. Play-based learning is also an impactful contributor in the areas of science, technology, engineering, and math, also known as STEM (Eason & Ramani, 2020; Wickstrom, Pyle, & DeLuca, 2019; Lippard, Lamm, Tank, & Ji, 2019; Nilsson, Ferholt, & Lecusay, 2018; Barblett, Knaus, & Barratt-Pugh, 2016; Dejonckheere, De Wit, Van de Keere, & Vervaet, 2016; Lynch, 2015; Thomas, Warren, & deVries, 2011). The 21st century requires employers to be innovators, collaborators, and out of the box thinkers. Hands-on and play-based learning can play a huge role in preparing young learners for this type of future. Researcher Lippard and team (2019) found research evidence has shown “[an] achievement gap emerges by kindergarten, and certain subgroups of children are at particular risk for their STEM skill development” (p. 188). In order to help to fill said achievement gap, play-based learning strategies can be employed.

Wickstrom, Pyle, and DeLuca (2019) share, “Within the academic domain of mathematics, play has been shown to support children’s overall mathematical ideas, skills, and reasoning. Specifically, play supports children’s counting and comparison ability, spatial reasoning, and geometric knowledge” (p. 288). Wickstrom, Pyle, and DeLuca’s 2019 observational study of current mathematical pedagogies in play-based kindergarten sought to understand the extent to which teachers were integrating play and direct instruction to support children’s mathematical learning. This study was initiated after researchers discovered some scholars believed direct instruction best supports math learning while others advocated for play-based pedagogies. Through observational data collected from twenty kindergarten classrooms,

the study found a combination of play and direct instruction was the most effective way to teach math in kindergarten. These researchers defined direct instruction as “a teacher-controlled pedagogy whereby discrete concepts are broken down into smaller units that are deliberately sequenced and explicitly taught,” and added “pedagogically, the purpose of play is to support children’s learning,” which was corroborated by Fisher et al. (2013), whose findings demonstrated that “children’s acquisition of geometric knowledge was impacted by instruction, as children who were taught through guided play performed significantly better than children in both the free play and direct instruction conditions” (Wickstrom, Pyle, & DeLuca, 2019).

In a 2020 study by Eason and Ramani, researchers observed how play impacted math talk, math engagement, and math learning in four- and five-year-olds compared to formal learning experiences. In this study, researchers found both formal learning and guided play activities equally supported math learning in the participating preschoolers, but both parents and children were more engaged, and found the learning more enjoyable, when learning math concepts through guided play activities as opposed to the formal math learning sessions. Eason and Ramani (2020) also noted in the literature a 2013 study by Fisher et al. which found children who engaged in a guided play version of a geometry activity with an experimenter performed better on a shape sorting task than either children in a didactic instruction condition where they were not able to interact with the materials, or children in an unguided play condition where they played with the same materials without any guidance or instruction.

When it comes to learning, particularly learning involving science and engineering, the developmentally appropriate practice for young children is hands-on learning where students are able to “explore their environments, ask questions, address problems, identify solutions, and make decisions” (Lippard, Lamm, Tank, & Ji, 2019; Nilsson, Ferholt, & Lecusay, 2018).

Lippard and team (2019) engaged in a mixed-methods case study of nine preschool classrooms examining what science and pre-engineering thinking looks like in preschool. This study found children's access to materials and time to generate their own problems based on individual interests were crucial to engagement and learning. Researchers also observed engineering habits of mind were most frequently observed in the block areas in classrooms, but engineering habits of mind behaviors also occurred with dramatic play, art, manipulatives, and sensory materials. Children engaged in engineering habits of mind both during independent play and peer play (Lippard, Lamm, Tank, & Ji, 2019). These 'engineering habits of mind' include systems thinking, optimism, communication, collaboration, creativity, and ethical considerations, all essential components of 21st century learning and STEM.

Through observations of play and exploration activities, researchers have discovered learning is an integral part of both play and exploration (Lippard, Lamm, Tank, & Ji, 2019; Wickstrom, Pyle, & DeLuca, 2019; Nilsson, Ferholt, & Lecusay, 2018; Dejonckheere, De Wit, Van de Keere, & Vervaet, 2016; Pyle & Bigelow, 2015). Learning in preschool is not led by participation in academically oriented schooling. In play, meaning is made by attributing meaning to objects and actions, and, in exploration, meaning is made by formulating, debating, and testing hypotheses and theories. Learning is the outcome of meaning-making processes in both play and exploration (Nilsson, Ferholt, & Lecusay, 2018).

While testing and integrating the effects of an inquiry-based didactic method for preschool science in a real practical classroom setting, Dejonckheere et. al (2016) found preschool students carried out more informative explorations during their voluntary play. In this study, children explored different learning materials and situations in various contexts through the implementation of fifteen activities spread over seven consecutive weeks. The results of this

study proved, compared to controls, children in the post-test showed significant learning gains in the development of the control of variables strategy, demonstrating children learn more and better when able to learn through play and exploration. Dejonckheere and team (2016) recommended in their discussion of study results, “Teachers should design environments in which scientific activities occur when the child explores, plays and learns. They should guide them by supporting self-regulation skills (e.g. planning), asking probe questions, focusing the children’s attention to causes and effects or helping them reflect on what was found (p. 538-539).

Play-based learning is extremely beneficial when it comes to enhancing students’ 21st Century and STEM skills. Play allows for hands-on exploration, manipulation, investigation, and allows children to assign meaning to their activities. As a result of the research done, it would be wise for teachers to make time for play and exploration in the classroom in order to allow for the development of academic skills such as language, literacy, science, technology, engineering, and mathematics.

The Decline of Play

Play is serious learning for young children, but there has been a decline in the emphasis of play in early childhood classrooms and more of a focus on rigorous academics. (Gray, 2011; Lynch, 2015; Nicholson, Bauer & Woolley, 2016; Henricks, 2016) Many researchers believe this decline of play began in 2003 when Congress narrowed the focus of Head Start to academic training, or perhaps as a response to the No Child Left Behind Act of 2002 which held schools accountable for how kids learned and achieved. Another possible cause of the decline of play may relate to increased time and weight given to schooling and other adult-directed activities (Cavanaugh et al., 2017; Kane, 2016; Lynch, 2015; Gray, 2011; Myck-Wayne, 2010).

Increased academic demands are a large factor when it comes to the decline of playtime in early childhood. Literature reviewed mentioned, “Despite extensive research literature that clarifies the components of excellent, effective early education through playful learning, U.S. preschools and kindergartens are becoming academic ‘boot camps’” (Myck-Wayne, 2010, p. 14). Many studies reviewed looked at teachers’ perspectives on play, which echoed the prior sentiment, saying there was a belief play was important, but because of the emphasis on academics and meeting benchmarks, there was pressure against or no support from administration when it came to keeping playtime in classrooms (Hesterman & Targowska, 2020; Chrysa Pui & Cheung, 2019; McArdle, Grieshaber, & Sumsion, 2018; Morris et al., 2018; Barblett, Knaus, & Barratt-Pugh, 2016; Lynch, 2015; Sumsion, Grieshaber, McArdle, & Shield, 2014).

Regardless of the reasons for the decline of play, there have been serious consequences because of the decline of play. Researchers Bodrova, Germeroth, and Leong (2013) studied the relationship between play and self-regulation through a mixed methods approach while observing preschool children’s play. The study found seven-year-olds today exhibit self-regulation levels more like those of the five-year-old children of the 1940s in that they have a much harder time physically controlling themselves in following directions of an adult. According to Bodrova, Germeroth, and Leong (2013), “Researchers have attributed this phenomenon to the decline in both quantity and quality of play that preschools and kindergartens now offer” (p. 117). These researchers also stated, “Declining self-regulation in young children puts them at risk of later cognitive and social-emotional problems” (p. 118). Scholar, Gray (2011), noted in his research regarding the decline of play and the rise of psychopathology in children, play, serves many functions to positively impact children’s mental health. In order to

support young children socially, emotionally, and academically, educators and policymakers need to keep in mind developmentally appropriate practice: play-based learning.

Recommendations for Implementing Play-Based Learning

The National Association for the Education of Young Children (NAEYC) “recognizes that play is a central component of developmentally appropriate practice and a vehicle for developing language, cognition, and social competence” (Han, Moore, Vukelich, & Buell, 2010, p. 83). Early childhood educators can effectively implement this developmentally appropriate practice of play-based learning within their classrooms without sacrificing precious instructional or academic time through balance and teacher involvement. There are notions of play as passive and undisturbed time for children, but leveraging this time to allow for student exploration and understanding of his or her environment is where real learning can take place (Nilsson, Ferholt, & Lecusay, 2018).

An effective way to leverage playtime for learning is through guided play. Guided play is still considered child-directed, but teachers initiate the play sequence to target academic outcomes. In guided play, “adults initiate the learning process, constrain the learning goals, and are responsible for maintaining focus on these goals even as the child guides his or her own discovery” (Weisberg, Hirsh-Pasek, & Golinkoff, 2013, p. 105), while the child is considered an active partner in the process of learning and not solely a recipient of information. When a teacher engages in guided play with students, the teacher is able to assume a role in play which can guide the conversation and exploration toward desired learning outcomes and contribute to the learning of academic skills (Pyle & Bigelow, 2015).

Many educators and policymakers believe direct instruction is the best or most effective way to teach academic skills and content. Direct instruction is a teacher-controlled pedagogy

where concepts are broken down into small units which are deliberately sequenced and explicitly taught. Because of the nature of this approach, direct instruction limits children's creativity and problem-solving skills, limits a child's self-efficacy, and hinders a child's opportunity for inquiry and exploration (Wickstrom, Pyle, & DeLuca, 2019). Researchers Wickstrom, Pyle, and DeLuca (2019) also noted evidence which suggests, compared to children in playful-learning classrooms, children enrolled in programs with direct instruction have higher levels of stress.

While some direct instruction is necessary in early childhood classrooms, balance is important. A 2019 study by Wickstrom, Pyle, and DeLuca examined how teachers were integrating play and direct instruction to support children's mathematics learning. The study observed twenty kindergarten classrooms during math instruction and found a combination of play and direct instruction were used to effectively teach math in kindergarten. In addition to this study, another study by Eason and Ramani (2020) aimed to identify characteristics of activities supporting high-quality math engagement. This study found formal learning and guided play activities were equally supportive of math learning, but participants rated the guided play activity as more enjoyable than the formal learning activity.

All in all, there are many ways an early childhood educator could approach teaching, but research has shown play-based learning, and specifically teacher involvement in guided play, is the most developmentally appropriate practice for teaching young children. As researchers Han et al. (2010) stated, "In an era of accountability and evidence-based research, examining the impact of play on academic learning is critical to helping early-childhood educators understand the real value of play in school success" (p. 100). To be a highly effective educator, the implementation of play-based learning has proven to be powerful.

Conclusion

Research has been conducted to understand the numerous benefits of play-based learning and why it is important to protect playtime in early childhood classrooms. The research reviewed summarizes that play-based, hands-on learning should be the primary practice in early childhood. The key discoveries and outcomes of this literature review demonstrate the value of play-based learning in early childhood classrooms and encourage educators and policymakers to advocate for the developmentally appropriate practice of learning through play in early childhood classrooms. The literature reviewed addressed social-emotional and academic benefits of play-based learning, as well as how play is beneficial to 21st century skills, literacy and language acquisition, and STEM (science, technology, engineering, and mathematics) components. Recommendations for the implementation of play-based learning, such as the use of guided play, were provided. Arguments against play-based learning and explanations as to why it is becoming less prevalent in early childhood classrooms were also shared.

This literature review was able to adequately answer these two research questions. First, what are the social and academic benefits to play-based learning in early childhood classrooms? Next, can play-based learning work effectively alongside intentional teaching practices, with intentional teaching being thought of as an active process (Queensland Curriculum & Assessment Authority, 2018)? Though the questions were answered, there was a lack of depth in the research, leading to gaps in the literature. Many of the studies reviewed had small sample sizes or homogeneous participant groups, perhaps skewing the research in favor of middle-class families. Future research consisting of larger participant groups and a wider breadth may reveal additional information.

Because of the lack of depth in the research, additional research may be necessary to provide insight on how to successfully combine play-based learning with intentional teaching to

achieve improved child outcomes in all academic domains, specifically analyzing standardized test scores in math and literacy. Educators would also benefit from additional research aiming to discover if groups of children benefit most from play-based instruction (Stagnitti et al., 2016) Further research may also be required to provide specific effective strategies to assist teachers with implementing play-based learning.

Play is an essential component in all areas of child development. This ideology of play has been endorsed by notable theorists and numerous research studies. There is substantial pressure placed upon students and teachers to demonstrate academic growth and success, but play is still essential and should be the cornerstone of teaching and learning in early childhood classrooms.

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