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The Power of Play in Early Childhood Education

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A Literature Review Presented
in Partial Fulfillment of the Requirements
For the Degree of Master of Education

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Abstract

This literature review synthesizes research on how early childhood classrooms use play as a learning tool for students. The review of literature examines different types of play and how children develop in relation to play. Play in the classroom is often viewed as a reward for completing schoolwork, but in preschool classrooms and beyond, play offers a wide variety of learning opportunities and aids in the development of new skills. This literature review uses scholarly articles and journals to examine the different types of early childhood play in the classroom and how children develop in relation to being able to play. Research published within the last ten years on the topic of play in the classroom reveals evidence that children are in fact learning while participating in play.

The Power of Play in Early Childhood Education

“Early years literature has long emphasized the value of a learning-teaching environment where children play and learn together in creative, investigating and problem-solving ways, where they can take ownership of and responsibility for their own learning and where their emotional and imaginative needs are met” (Broadhead, 2016 p. 101). There continues to be opposing views regarding how much young students should be participating in play during their school day. The problem is that many educators do not see the importance of play or the contribution it has to academic gains. Many schools limit play beyond preschool and use it as a reward rather than part of the curriculum.

Research has been conducted to understand how play impacts children and their development. Scholars have looked at the benefits of play, and studied the different types of play, in order to understand how children are developing cognitively on a day to day basis. “By simply participating in meaningful play children are learning new vocabulary and language skills, growing in their social-emotional skills, developing their fine and gross motor skills, growing their creativity, and learning how to interact in their world” (NAEYC, 2020 p. 1). Literature suggests that play and development are linked, however opposing views suggest too much play can be present in the classroom as well. Research has been conducted on the amount of time children should partake in play, the age appropriateness of play, and how play contributes to the development of new skills. The purpose of this literature review is to analyze the research that has been conducted on how children learn through different types of play, how socioeconomics effect development in regard to play, and to analyze the effectiveness of preschool

programming. Curriculums that incorporate play are present in public school settings but may not continue beyond preschool. Children participate in play on a daily basis, but the amount of time decreases as they get older and advance in school. The quality of the preschool program students attend will have lasting effects on their development.

This literature review will examine findings on, “play in early childhood.” The research was then expanded to findings on curriculum and preschool programming. Next, socioeconomics and race were researched to see the impact they have on outcomes because children from different backgrounds develop differently. Children that come from poverty develop differently based on the resources that are available, or the lack thereof. Studies that took place in the United States are the main focus of this literature review. Other countries tend to have different philosophies on education. All of the articles in this review are ten years old or less. The subtopics in this literature review include early childhood development and play, cognitive benefits of play, pretend play, block play, play based theories, program quality, play based curriculum, and screen time.

The findings in this literature review are that play has a powerful effect on a child’s development when it is used in early education and beyond. These findings are backed by theorists and research studies that have been conducted. Play offers children with learning opportunities that cannot be conducted in a more rigorous or formal setting. Not only are children learning academically while they play, but they are also developing socially, emotionally, and physically.

This literature review is structured to address the findings of the research studies that have been conducted in favor of play, and their opposing studies that feel that play is

not always beneficial. Theorists are examined and their theories on play are explained. The types of play are analyzed and explained to gain a better understanding of what play actually encompasses. Other factors that contribute to play based learning such as socioeconomic status, race, and the types of preschool programming that have the best opportunities for play based learning are examined and compared. Highly respected agencies such as NAEYC and the American Association of Pediatrics are present in this literature review.

Review of the Literature

From the time a newborn baby enters the world they are exposed to play. Infants explore the world around them through sensory experiences. Infants enjoy textures, sounds, and movement. As children get older, they gain interest in toys and more mature sensory experiences such as eating, water play, and songs. As children get old enough to attend preschool, they are introduced to a wide variety of play opportunities that include playing with others and developing socially and emotionally. As children enter into school beyond preschool, play is valued less, and educators encourage children to view play as a reward.

How Children Learn Through Play

Early Childhood Development and Play

“Sustained, moderate-to-severe play deprivation during the first 10 years of life appears to be linked to poor early child development, later leading to depression, difficulty adapting to change, poorer self-control, and a greater tendency to addiction as well as fragile and shallower interpersonal relationships” (Brown, 2018, p. 2). Poverty

and fewer opportunities for play are on the rise, especially in inner cities (Brown, 2018). One area in particular, outdoor play, has rapidly declined in recent years. According to Joe Frost, a leading American scholar of play, “modifications and/or disappearance of play during the past 50 years is causing a public health crisis and a threat to societal welfare that may last generations” (Brown, 2018, p. 4).

Brian Sutton-Smith (2018), a researcher focused on play, found that adults who lack social skills and the ability to cooperatively learn experienced play deficits as children. Thus, leading to the concept of play contributing to learning. However, with this known, the United States has “distorted life by separating work and play, forgetting our pasts as hunter-gatherers, in which sharing, and joyfulness were integrated into the task of finding food” (Brown, 2018, p. 24). “Honoring a human need to be in state of play and seeing this as a public health necessity is as important as hand washing, good nutrition and careful driving” (Brown 2018, p. 24).

Cognitive Benefits

Child development research has shown that play contributes to creative problem solving. When children participate in play, they are experimenting with different behaviors that help them develop creatively. Research shows that children who play with divergent toys early on grow up to be better problem solvers. (White, 2012) “The small number of studies that have examined longer-term Head Start effects by following participants and nonparticipants into adulthood provide consistent evidence of beneficial effects on outcomes such as high school completion, college enrollment, physical health, mortality, criminal behavior, and “idleness.” (Bloom & Weiland 2015, p. 4) However,

there is a lack in comparisons between children who attended Head Start programming and other early childhood education programs. According to Bloom and Weiland (2015), there are other factors that can contribute to cognitive gains such as gender, developmental factors, and existing socio-emotional skills.

Pretend Play

Pretend play has been labeled as crucial to a child's development. "A clinical report on the subject for the American Association of Pediatrics opened, play is essential to development, so important that it has been recognized by the United Nations High Commission for Human Rights as a right of every child" (Ginsburg, the Committee on Communications, & the Committee on Psychosocial Aspects of Child and Family Health, 2017, p. 182). Research varies in regard to what constitutes pretend play and how often children should participate in the activity. (Lillard, A. S., Lerner, M. D., Hopkins, E. J., Dore, R. A., Smith, E. D., & Palmquist, C. M., 2013).

Block Play

Research has been conducted to examine the different types of play and the effects they have on learning. One of the most popular types of play amongst children is block play Ginsberg (2016). indicates that "children think and talk about shape, size, length, area, and number. Other researchers have observed that block play includes high levels of math talk—conversations about mathematics" (Ramani et al., 2014; Trawick-Smith, 2016, p. 432). However, there was no correlation between block play and increased mathematical abilities (Hanline, 2010). Even if children are not increasing their mathematical skills through block play, they are improving their language skills and

experiencing social interactions with peers. Trawick-Smith (2016) observed, “more social interaction was recorded when children were playing with blocks than when using any other kind of play material” (p. 434).

Play Based Learning Theories

“In evaluating the value of teaching and learning through play there are a wealth of psychologists and theorists including Piaget, Bruner, Vygotsky, Isaacs, Montessori, Froebel and McMillan all documenting a variety of research supporting the effectiveness of play-based learning” (UKEssays, 2018, p. 1). Most theorists view play as a way for children to discover the world around them, formulate opinions, and give meaning to changes in their world. Piaget widely believed that children are in control of their own learning. Piaget felt that children need to be able to organize their experiences and learn from them on their own. His theories go hand-in-hand with his approach on development in general. “Piaget perceived play as a method which children use to develop their cognitive abilities and to practice their emerging cultivated capabilities” (UKEssays, 2018, p. 1). Piaget found that children could adapt to the world around them when they were participating in purposeful play. He placed strong emphasis on play with rules, imaginary play, and imitative play. Vygotsky viewed play in stages or development. Vygotsky was an advocate for play that went beyond the early childhood years and continued into late childhood. He felt that children develop vital thinking during play experiences that were structured (UKEssays, 2018). Gardner felt that not all children learn the same way and that formal teaching methods do not cater to the needs of all students; leaving learning through play a more acceptable practice because children were given the freedom to learn how they

chose (UKEssays, 2018). Dewey had strong views towards experimental learning. “He refutes methods that rely heavily on content and passive learning, where children are required to memorize information from a book or other source” (UKEssays, 2018, p. 3). Friedrich Froebel studied learning based on play, where he felt that all humans benefited from free-flow play and that children developed while participating in play activities. Froebel developed a children’s curriculum based on play because he believed it was the highest form of learning for young children (UKEssays, 2018).

While there are many more theorists who support play and have researched the benefits of play, there are also theorists who do not support play. Anning, Bennett, Meadows and Cashden (UKEssays, 2018) disagree with the research findings that support play as learning. These theorists feel that play cannot be assessed and therefore concrete outcomes cannot be produced. The theorists against play believe the evidence supporting the benefits of play are lacking. Anning, Bennett, Meadows and Cashden do not feel that play can be used in part of an education curriculum and it is far too subjective (UKEssays, 2018).

Socioeconomic Status and Play

The American Psychology Association (2020) defines Socio Economic Status (SES) as “the social standing or class of an individual or group that is often measured as a combination of education, income and occupation” (American Psychology Association, 2020, p. 1). “Increasing evidence supports the link between lower SES and negative psychological health outcomes, while more positive psychological outcomes such as optimism, self-esteem and perceived control have been linked to higher levels of SES for

youth.” (American Psychology Association, 2020 p. 1) Children who come from a lower SES often develop social problems, ADHD/ADD, higher levels of aggression, and elevated risks of obesity. Children from low SES begin kindergarten with less linguistic knowledge (Purcell-Gates, McIntyre, and Freppon, 2015).

Play and language go hand-in-hand. When students are not offered play opportunities, they often lack in the development of their language skills. Children from lower SES are typically offered fewer play opportunities due to a lack of resources and inconsistent care providers. Maintaining a strong parent–child bond helps promote healthy child development, particularly for children of low SES (Milteer, Ginsburg, & Mulligan, 2012).

Low income parents are often under more pressure when it comes to maintaining a job due to a lack in daycare resources. A lack in childcare can make getting and keeping a job harder. Head Start early childhood programs offer a consistent alternative to parents in this situation. While the long-term effects of this program are debatable, many children can rely on Head Start to be a safe, predictable, and consistent environment where they can play and learn while their parents work or pursue an education of their own (Mortensen, J. A., & Barnett, M. A. 2019).

However, opposing research suggests that Head Start programs can actually negatively impact young children. One area that Head Start struggles with is emotional regulation among their students. Many students attend Head Start with the inability to regulate, identify, or manage their emotions and behaviors thus leading to a chaotic and overwhelming experience for children (Mortensen, J. A., & Barnett, M. A. 2019).

The Department of Health and Human Services has conducted a study on Head Start Programs, which is a program that is widely offered to children that come from low SES. The study concludes that by 1st grade, many of the benefits of the early childhood program are no longer relevant or obvious in the children that attended (Piper, 2018). The Brookings Institute compared children who attended Head Start with their siblings who did not and found that there was actually a drastic difference in self-control, self-esteem, attendance and graduation rates. Research has inferred that the Head Start program could be attributed to improved parenting skills for the next generation (Piper, 2018).

Preschool Effectiveness

The Learning Policy Institute (2019) believes that children who attend high-quality preschools will be at an advantage that can last well beyond their school-aged years. Children in 21 public school preschool programs were found to be more prepared for school and had obvious learning gains. “Students who attend preschool programs are more prepared for school and are less likely to be identified as having special needs or to be held back in elementary school than children who did not attend preschool” (LPI, 2019, p. 1).

Piper (2018) suggests that students who attend preschool do not actually come out ahead of their peers. When looking at academic abilities, by second grade researchers cannot detect a difference in the ability of children who attended preschool versus those who did not. While academic success seems to go unnoticed, students who attended preschool programs are often less likely to be arrested, more likely to graduate, and less likely to abuse substances in adulthood.

A research study called the Abecedarian Project focused on the impact of social services in relation to young children (Linde, 2020). The project looked at how early childhood programs could affect students in the long term. Three areas were analyzed including academic performance and cognitive abilities, health, and substance abuse later in life (Linde, 2020). The Abecedarian project offered early intervention services from the time a baby was born. Infants benefit from a warm, safe and consistent environment, which this project offered. While academics benefits may not be evident, these children grew up to be happier adults. This project gave insight on the idea that offering education early on in a child's life isn't so much about the actual content, but more about the consistent warmth and attention that the children are receiving (Piper, 2018).

Washington D.C. made preschool free for all children. "Labor force participation for women with young children in DC increased from about 65 percent to 76.4 percent over a decade. Compare that to the 2 percentage-point increase nationally during the same time period. The effect was even more pronounced for low-income mothers, whose labor force participation increased by 15 percent" (Piper, 2018, paras 29-30). A jump that big from a single intervention is rare.

Program Quality

While Head Start is one of the most well-known early childhood programs, there are differences in outcomes based on the quality and time spent in the program. Evidence suggests that the amount of time children attend the program can impact its effectiveness, as well as, a child's attendance. However, Bloom and Weiland suggest, "little corresponding variation in program effects" (Bloom and Weiland, 2015, p.8) "Further,

there are relatively weak relationships between observational measures of quality in preschool programs and gains in enrolled children's cognitive and socio-emotional skills" (p. 8). Evidence suggests factors such as special needs, gender, home language, race and ethnicity do contribute to the effectiveness of the program. The perception might be that the program is at fault, when really it is the other factors that are out of the program's control. General agreement exists among the early childhood community that quality preschool programming consists of a child-centered education. Evidence links the quality of preschool to outcomes later in life. "One of the most compelling longitudinal studies linking quality early childhood care and education to personal and professional effectiveness in the adult years was recently released by the FPG Child Development Institute (Campbell et al. 2012). "The results of this study suggested that adults who were exposed to high quality kindergarten education programs had more years of education and were four times more likely to have completed college compared to their counterparts from the control group" (Abu Taleb, T. F. 2013, p. 308).

Play Based Curriculums

A curriculum that focuses heavily on play can be observed in early childhood classrooms, but seemingly disappears as children age. "Since the idea of play is abstract and has no pre-determined outcomes, some teachers feel uneasy about allowing students to play with concepts and materials, especially with the advent of increased accountability and scripted curriculums" (Ortlieb, 2010 p. 3). Learning through discovery leads students to develop their critical thinking skills, which assists in solving academic problems. High Scope (2020), which is a research-based center that focuses on early

education, has developed a preschool curriculum that is heavily backed by research studies. High Scope believes that children become interested in learning through an environment that encourages them to explore and interact with adults and peers. High Scope (2020) goes further into learning through play by giving guidance on how to set up the classroom and organize materials to promote and carry out these intentions. Play based preschools give students the freedom to play, interactive, and move from activity to activity. Blake (2017) suggests students should participate in a preschool program with an academic focus. This type of program is run more like a typical school and focuses on prescribed learning activities. The classroom teacher influences the amount of learning that can be attributed to play. Studies have shown that teachers' language, verbal skills, questioning, and problem solving can improve the learning that goes on during independent play. (Trawick-Smith, J., Swaminathan, S., Baton, B., Danieluk, C., Marsh, S., & Szarwacki, M. (2017).

Screen Time

Over exposure to screen time is not only happening at home, but in schools as well. An increase in screen time has led to children becoming more obese. This is because instead of playing outside or indoors, children are stationary and spending time on electronic devices. The current obesity epidemic can be attributed to a lack of healthy play time among children. Excessive screen time during preschool age increasing a child's BMI (Body Mass Index). Studies conducted on physical activity have shown positive results. "In a one-year follow-up study, time spent playing outside was associated with lower body mass index (BMI) in 3- and 4-year-old children"

(Schwarzfischer, P., Gruszfeld, D., Socha, P., Luque, V., Closa-Monasterolo, R., Rousseaux, D., Grote, V. (2020). p.2). Studies revealed that children as young as two will naturally interact with a touch screen in the same way they will use natural instincts to play with a new toy (Sharkins, K. A., Newton, A. B., Albaiz, N. E. A., & Ernest, J. M., 2016). Opposing research suggests that there are benefits to young children using technology. “Regarding literacy development, pre-service teachers expressed that integrating computers in their teaching had positive outcomes in terms of instruction and enhancement of literacy skills (Al-Barakat and Bataineh 2008; Ihmeideh 2010, p. 438).

Conclusion

The key discoveries and outcomes of this literature review include the concept of play contributing to learning and child development as a whole. Without opportunities to learn and discover on a daily basis, children are at a disadvantage that has lasting effects on their overall well-being. Research suggests that children who are deprived of play opportunities grow up having higher rates of being arrested, abusing substances, and being unsuccessful (Bonjiorno, 2020). Play is truly powerful and essential for children because it leads to growth and development.

The patterns that have emerged as a result of the research on play include understanding that children who have gone to preschool are more successful in later years because play contributes to the development of social emotional skills, language skills, and physical abilities. Children who come from low SES benefit from the structure and routine that preschool can offer and from an increase in play opportunities that might not otherwise be offered to them.

Over time, researchers have changed their approach on the topic of play and realize that it is becoming more and more important. Researchers are beginning to look further into a child's development and understand how play, or a lack thereof, contributes to development far beyond the early childhood years.

The findings in this literature review contribute to the current discussions on quality preschool. Children are spending more time on screens and engaged with technology. This leads to less time exploring creativity and engaging in outdoor play. The types of play, the importance of play, and the lasting effects play has on development are

relevant in this literature review. While there is research that has been done on early childhood programming, the bulk of this research addresses outcomes of Head Start programs. A gap in research exists that addresses early childhood programs in wealthy areas or the children who receive early childhood education from their parents at home.

Further research needs to be done to look into how children from different backgrounds develop when exposed to the same early childhood play experiences in education. Some of the results of these studies focus on children who are not being given typical experiences outside of the educational setting. When the focus is on only one population of children, it is hard to truly compare the findings of research. Research should be expanded and compared to dig deeper into the types of play and the lasting effects each type has on children when it is offered in a variety of settings. If research can be conducted in this manner, we can move forward and educate children far beyond their preschool years with play.

This literature review can best be used to educate parents and teachers. Preschool curriculums are already incorporating play into many aspects of a child's day, but we lose sight of the importance and the power of play beyond this early year. Research is leading to the obvious answer for our school systems, which is that play is learning and helps students develop in all areas. When students are given the opportunity to play, they are given the opportunity to learn. Learning takes place for a lifetime and so should play.

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