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PLAY-BASED CURRICULUM AND THE HOLISTIC DEVELOPMENT OF THE CHILD

A MASTER'S THESIS
SUBMITTED TO THE FACULTY
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AMEENA LALANI

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PLAY-BASED CURRICULUM AND THE HOLISTIC DEVELOPMENT OF THE CHILD

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Abstract

According to Rieber, Smith and Noah (1998), play is a crucial process that helps learning throughout life. Children's play has been classified as an activity that is intrinsically motivating, pleasurable, freely chosen, non-literal, actively engaging, opportunistic, active, imaginative, and creative (Ashiabi, 2007). Even though extensive research literature is available, play is still questioned in these times of rigorous academic accountability (Myck-Wayne, 2010). This thesis will substantiate *how a play-based curriculum can help in the holistic development of the child to its potential*. The literature review will have three main parts. The first part will define play and its types. The second part will discuss play and holistic development through developmental domains. The last part explains how play as curriculum can be implemented in early childhood classrooms. The research findings support that play should be used as part of the early childhood curriculum and not merely as recreational activity (Youngquist & Pataray-Ching, 2004) that will help in holistic development of the child to its potential.

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CHAPTER I: INTRODUCTION

Rationale

Research in early education supports the role of play for young children as an essential modality of learning and psychological development (Ashiabi, 2007; Bredekamp & Copple, 1997; Eisert & Lamorey, 1996; Hrish-Pasek et al., 2009). Also, Bredekamp and Copple (1997) emphasize that the most developmentally appropriate way for all children to learn is through play. From a social constructivist viewpoint, play facilitates the child's development by building and extending knowledge through cooperation with others and on his or her own (Ashiabi, 2007). Play is an essential part of the learning process in the early years of a child's life and also throughout life and should not be neglected. Play that is serious and focused within a learning environment can help learners construct more personalized and constructive understanding (Reiber, Smith & Noah, 1998). Reiber et al. (1998) note, "as educators, our challenge is to implicate motivation into learning through play and to recognize that play has an important cognitive role in learning" (p.35).

Even though abundant research is available in favor of play in the early years and how it develops the child holistically, play is not finding its well-deserved place in early childhood education. In the USA, early childhood education experts and researchers suggest that the nation's demeanor continues to focus on curricula, standard-based instruction, standard tests, and play is being squeezed out of the educational equation (Bodrova & Leong, 2003; Hirsh-Pasek, Golinkoff, Berk, & Singer, 2009). This holds equally true for other parts of the world, especially Uganda. After 54 years of independence, in

2016, Uganda got its first-ever early childhood document – The National Integrated Early Childhood Development Policy. This policy has no mention of play though its goal is "to provide direction and guidance to all sectors for quality, inclusive, coordinated, and well-funded ECD services and programs" (p.2). It mentions the holistic development of children (p.3) but finds no mention of space for play or play-based curriculum. "Play has to be reframed and seen not as an opposite to work but rather as a complement" says psychologist David Elkind in his foreword for *Crisis in the Kindergarten* (Miller & Almon, 2009, p. 51).

Often adults think of play in terms of recreational activities or time off from work rather than as the work of the child (Elkind, 2007). Awareness of play-based curriculum in early childhood education becomes the critical component for various stakeholders involved with children, let that be teachers, policymakers, or parents. Therefore, this paper's focus is to affirm the direct correlation between play and holistic development of children; academic success will follow. With an emphasis on play-based learning, students would continue to grow and develop appropriately and still meet academic expectations (Miller & Almon, 2009).

Purpose of Study

There is an increasing body of research that establishes a direct correlation between play and children's holistic development. In this paper, holistic development was used as a four-dimensional approach to learning that emphasizes the importance of physical, social-emotional, language, and cognitive development. Play is linked to growth in memory, improved physical health, self-control, oral language, and

communication skills. Children's play has been conceptualized in terms of creativity, adaptation, exploration, experimentation, learning, communication, socialization, acculturation, and mastery (Piaget, 1962; Schwartzman, 1978; Vygotsky, 1978).

Children's play has been operationalized as intrinsically motivating; pleasurable; freely chosen; non-literal; actively engaging; opportunistic and episodic; imaginative and creative; fluid and active; and predominantly for the moment, and therefore concerned more with means than ends (Rubin, Fein, & Vandenberg, 1983; Sturgess, 2003).

There is an urgent need for using a play-based curriculum to ensure holistic development (four-dimensional as mentioned above) of children – physical, social-emotional, cognitive, and language. Centers for Disease Control and Prevention, 1996, states that lack of physical activity is closely linked with the incidence of several chronic diseases and a lower quality of life. Therefore, physical activities, outdoor play, and gross motor play are essential leading to *physical development*. Play facilitates children's *social-emotional development* by building and extending knowledge through cooperation with others and on his or her own and is more successful in peer relationships (Ashiabi, 2007; Hubbard & Coie, 1994). Play serves to motivate learning and recognize that play has an important *cognitive development* role in learning (Reiber et al., 1998, p. 35). Play is also linked to *language development* through increased literacy skills and other areas of academic learning as per Piagetian and Vygotskian theories of child development. Thus, to ensure the holistic development of the child, play should find its rightful place in early childhood centers.

Research Questions

This paper's essential questions were to study the impact of play on various developmental domains like physical, social-emotional, language, and cognitive. Then these developmental domains were incorporated via a play-based curriculum in the form of learning centers and outdoor spaces. Finally, the role of teachers was explored. The specific research questions leading to the main question, how can a play-based curriculum help in the child's holistic development were – what is play and its importance in early years, how does play impact the holistic development of children, and how to implement play in early childhood education.

Significance of Study

Findings from this study will emphasize the need and urgency of play-based curriculum in early childhood education for children's holistic development. Also, the context of Uganda further enhanced the need for the same. Additionally, through further understanding of learning centers, the importance of outdoor spaces, and teachers' role in early childhood classrooms, a clearer implementation plan for play-based curriculum in a classroom setting was established. The study also makes strong recommendations for research in Ugandan context and implications for various stakeholders like teachers, administrators, and parents.

Summary of Chapters

Chapter II includes a literature review that is dealt in three parts. In the first part, the definition of play, its types, and limitations of play have been highlighted. The second part comprises how play impacts the holistic development of children through four-dimensional developmental domains – physical, social-emotional, language, and

cognitive. The final part in the literature reviews explores bridging the play to curriculum. implementation through learning centers, outdoor spaces, and understanding the role of teachers in implementing play-based curriculum in early childhood classrooms. The final chapter summarizes, analyzes, and concludes the literature review. Implications for future and professional study makes recommendations for research in Ugandan context and implication for various stakeholders like teachers, administrators, and parents.

Definition of Terms

Holistic development is an approach to learning that emphasizes the importance of four-dimensional developmental domains – physical, social-emotional, language, and cognitive. Development and learning in early years should be holistic across all developmental domains. These developmental domains should not be seen as separate from each other or in silos but as interconnected components.

Early childhood is a period considered from birth to five years old, a remarkable growth with developments at its peak. In literature, terms like daycare, childcare centers, nursery schools, preschools, and kindergartens will be used synonymously. Though they indicate different services, they will broadly cater to the age group of birth to five years, which will be termed here as early childhood years.

Play is intrinsically motivating; pleasurable; freely chosen; non-literal; actively engaging; opportunistic, and episodic; imaginative, and creative; fluid, and active (Rubin, Fein, & Vandenberg, 1983; Sturges, 2003). Play should be seen as the highest expression of human development in childhood as it is the only expression of what is in

a child's soul (Froebel, 1912). Play has long been regarded as the primary way in which children make sense of the world (Piaget, 1962; Vygotsky, 1967).

Play-based curriculum is a method of teaching focused on the whole child and the dependence on play for teaching and guiding a child during development (Frost, Wortham & Reifel, 2008). Play-based curriculum is experiential, child-centered, developmentally appropriate, and caters to individual interests of children.

Learning centers are self-contained learning activity sections in classrooms where children are empowered to direct their own learning and are free to make choices. They are arranged as per the needs, interests, and skills of children; they are flexible, and adaptable; they should have open-ended materials; materials can be changed or added every two to four weeks (Ramazan et al., 2018).

CHAPTER II: LITERATURE REVIEW

Literature Search Procedures

To locate the literature for this thesis, education journals, ERIC, International Baccalaureate journals, research papers, and peer reviewed articles and publications were used widely. With the huge bank of literature available through Bethel library, electronic databases were searched. No study date limits were imposed. The review of literature for this study was focused on three broad categories: defining play, play and holistic development, and implementation of play as a curriculum in early childhood education. From each broad category, more specific categories emerged: defining play was further categorized into what is play and types of play; play and holistic development are further categorized into four developmental domains that are physical, social-emotional, cognitive, and language; play as curriculum in early childhood education is further categorized into the play-based curriculum, learning centers, outdoor spaces, and teacher's role. There was an abundant amount of information about play and its benefits in early childhood. However, it was challenging to locate information directly related to play and learning centers corresponding to developmental domains. This cross-referencing of learning centers along with developmental domains as mainstream curriculum in early childhood classrooms was a challenge. An attempt to resourcefully organize the importance of play, its impact on holistic development, and play-based curriculum as an implementation tool is made in this paper. Furthermore, this uncovered some of the underlying reasons for the

decrease of play in early childhood, though very much in the United States context, although it is relevant in every early childhood context.

History and Context of Early Childhood Education in Uganda

The beginning of nursery education in Uganda can be traced back to the 1930s when it was initiated by the European colonial administrators and Goans (Indians) to prepare children for formal education (Ejuu, 2012). Ejuu further writes that Nursery schools were private and established exclusively for the use of private communities. European nursery schools' main objective was to prepare European children for school when they went back to Europe. These groups felt that such programs were important to prepare children for formal education (Malinga, 2000). The curriculum methods and scholastic materials for learners were foreign, with a little reference to the Ugandan situation. When some Ugandans became active and started opening ECD centers to cater to the local population in some big cities, these centers were of poor quality compared to that of Europeans (Malinga, 2000).

After Uganda's independence in 1962, it took almost 54 years for a national policy on early childhood development in 2016. The vision as per policy is to grow and develop children to their full potential. The mission is to ensure equitable access to quality and relevant ECD services for children's holistic development. (Ministry of Gender, Labour, and Social Development, 2016). As per the policy, "programs are designed so that all the developmental domains (physical, mental, social, emotional, and linguistic) of a child are taken care of" (p.3). Other than the child's holistic development, the policy is also guided by factors like equity access, context-specific,

family and community engagement, good governance, accountability, rights-based approach, public-private partnership, and inclusive and complementary service provision.

There is also literature available about the evolution of ECD programs in Uganda. There is a commitment from the government to work in this sector (Ejuu, 2012; Croke & Atun, 2019). However, marriage between policy (and intentions) and implementation is not successful yet. No mention of play in this policy document shows that policy, though written in modern times, lacks research and awareness about the importance of play. Add to this, various challenges like civil wars cropping up every election cycle, inappropriate distribution of ECD centers, poor and lack of teachers' professional training, and poor quality of infrastructure (Ministry of Education and Sports, 2014). Most importantly, early childhood enrollment in Uganda stands only at less than 10%. According to The Education and Sports Sector Annual Performance Report (2015/2016), more than 90% of children are still waiting to access early childhood education, especially in rural communities.

The concerning matter here is that play in early learning is important and is being ignored. Countries like Uganda are ignoring play in early childhood because of lack of awareness, research skills, and policy decisions, while countries like USA are squeezing play out of the educational equation as they are shifting to prescriptive curricula, standard-based instruction, and standardized tests (Bodrova & Leong, 2003; Hirsh-Pasek et al., 2009). Reiber et al. (1998) insist that we must connect play as motivation to learning. Play is a crucial process that contributes to learning throughout

the lifespan, serves to motivate learning, and contributes to cognitive development.

They have strongly recommended that play is an essential part of the learning process throughout life and should not be neglected. Learning environments should have serious and focused play to help learners construct a more meaningful, individual, and constructive understanding. Therefore, through literature review, it would be substantiated that play-based curriculum helps in the child's holistic development to its potential and create a little more awareness about the same, especially in the Ugandan context.

Defining Play

There is abundant research available on play and its importance. As per Zosh et al. (2017), children are intrinsically motivated to play making learning happen and developing new skills. During play, children can solve problems, know how to deal with problems, make choices, and control the situation. They elaborate that although many studies have investigated playful learning, its benefits for content knowledge, and evidence on learning through play are mounting. 'Beyond infancy and toddlerhood, learning through play is also proving to be an effective and worthwhile pedagogical technique for teaching in the 21st century' (p. 32).

Today's world is constantly changing with careers that didn't exist in the last 20 years earlier being the new norm, political landscapes, digital economies, and evolution of social lives (Hirsh-Pasek et al., 2009). Using simple yet, compelling words by researchers Golinkoff and Hirsh-Pasek (2016), realizing children's potential in the face of uncertainty means supporting them to be "happy, healthy, thinking, caring, and social

children who will become collaborative, creative, competent, and responsible citizens tomorrow" (p.14).

Children's play has been conceptualized in terms of creativity, adaptation, exploration, experimentation, learning, communication, socialization, acculturation, and mastery (Piaget, 1962; Schwartzman, 1978; Vygotsky, 1978). These results have been further endorsed and validated by Rubin, Fein, and Vanderberg (1983) that children's play has been operationalized as intrinsically motivating, pleasurable, freely chosen, non-literal, actively engaging, opportunistic, episodic, imaginative, creative, fluid, active, and predominantly for the moment; therefore, concerned more with means than ends.

What is Play?

Play has been defined and explained as intrinsically motivating, engaging, opportunistic, imaginative and creative, fluid, active, pleasurable, freely chosen, non-literal, and predominantly for the moment; therefore, concerned more with means than ends (Rubin, Fein & Vandenberg, 1983; Sturges, 2003). The Lego foundation in support of UNICEF (2018) endorses that play is one of the most important ways young children gain essential knowledge and skills. Therefore, play should be at the core of pre-primary programs.

Bredenkamp and Copple (1997) insisted that play is the most developmentally appropriate way for children to learn, and others have suggested that play facilitates problem-solving, perspective-taking, emotional and social skills, and the development of a theory of mind (Bailey, 2002; Hartup, 1992; McArdle, 2001). Furthermore, in play, children's ability to solve problems, share, cooperate, and negotiate with others, take

turns, self-control, work with peers, and get along with others are promoted (Ashiabi, 2007). During play and various scenarios, children have natural opportunities to cooperate and engage in conversation with their peers without any interruption (Leseman, Rollenberg & Rispen, 2001). Continuing to further underscore, Miler and Almon (2019) insist that, "if problem-solving, communication, collaboration, innovation, and creative thinking are to remain part of our legacy as a species, then play must be restored to its rightful place at the heart of childhood" (p.56). Gray (2011) also argues that children learn to get along with others through play, solve problems, inhibit their impulses, and regulate their emotions. He further states that, young people fail to acquire the social and emotional skills necessary for healthy psychological development without play. Wood, Milteer, and Ginsburg (2011) also emphasize on similar lines that play prepares a strong foundation for the development of critical social and emotional knowledge and skills. Through play, children learn to form relationships, establish connections with others, share, negotiate, resolve conflicts, and learn self-advocacy skills. Play also teaches children leadership skills as well as working in group skills. They further assert that play is a natural tool that children use to build resilience and coping skills. They learn to navigate relationships, deal with challenges in the environment, and conquer fears.

Miller and Almon (2009) also emphasize that young children work hard at play. They create, invent, and modify their stories, solve problems by negotiating their social roadblocks. Children do this naturally and diligently because their motivation is from within. They learn powerful lessons of pursuing their ideas to conclude. They assert that

"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" (p.8). Waner and Parker (2005) expressed that, "play is healthy and in fact, essential for helping children reach important social, emotional, and cognitive developments as well as helping them manage stress and become resilient" (p.2).

Through play and active engagement, Zosh et al. (2017) see children as better prepared to deal with tomorrow's reality – a reality of their own making (p. 3). From this perspective, learning through play is critical and most needed for positive and healthy development. Research also validates how child-centered preschool lays a more solid foundation for later learning than an academic focus alone (Campbell et al., 2008; Marcon, 2002; Weisberg, Hirsh-Pasek & Golinkoff, 2013). Therefore, it is critical to understand the importance of play and integrate play-based curriculum in early childhood education.

Lack of Play

Though abundant research evidence supporting the importance of play and its central role in early childhood is available, play is falling out of the foundation of learning in early childhood. The reduction of play opportunities in early childhood education can be attributed to many factors. Leseman et al. (2001) mention that although the original purpose of Kindergarten was to provide an environment in which children could play and explore, recent educational policies have mandated strict academic standards that must be taught. It is not easy to understand and assess the benefits of play. This leads to parents and teachers viewing play as irrelevant to the

learning process (Elkind, 2007). Myck-Wayne (2010) also states that play's value is questioned in these times of rigorous academic accountability; teachers of young children are faced either with defending the use of play or giving it short shrift in the classroom (p.14). Hirsh-Pasek et al. (2009) write, "Despite an 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" (p. 10). Recent decades have consistently seen children being pushed towards academic skills at a very young age. Citing examples from the US and UK, Bassok et al. (2016) explain that kindergartens have shifted towards more literacy, math, direct instruction, and assessment over creative and child-led activities. This situation is relatable, even in the Ugandan context. Graue (2010) also asserts that, today's children have more formal schooling and less time in exploring, practicing skills, or building relationships in the early years. Play has been abandoned in increasing numbers to focus on what is seen as learning (Gray, 2011).

Learning and play should be seen as compatible rather than opposites, argues Hirsh-Pasek et al. (2009). They also argue that learning takes place best when children are fully engaged and enjoying themselves. Many countries have policies and standards for early childhood education; still only seldom include play-based learning. As mentioned above, the most recent Early childhood policy in Uganda that was launched in 2016 has no mention of play; similarly, a review of early learning and development standards of 37 countries conducted by UNICEF (2017) revealed that only one-third of standards, the concept of playful learning was well integrated.

Types of Play

Miller and Almon (2009) strongly advocate that every child deserves to learn and grow in a play-based, experiential environment. That makes early childhood education unique; it starts with the child and not with the content or standards (p. 8). They continue to elaborate further that play does not mean "anything goes" (p.12).

Again, there is immense literature on different types of play like free play and guided play and how they are impactful or not so impactful (Miller & Almon, 2009; Pyle & Danniels, 2016; Zosh et al., 2017). The model recommended by Zosh et al. (2017) of "*a continuum of playful learning*" (p.13) is very attractive. At one end is free play, which is child-led, giving children the freedom to explore, play, challenge, and discover with minimum constraint. But they also explain that play does not happen in a vacuum. As there are peers, adults, and other people around, it is then extended to guided play where it is child-led but adult scaffolded.

Additionally, they have also added games to this umbrella of the continuum of play where adult designed, scaffolded, with set rules. Similar to this model, the pedagogical play-framework model from Edwards, Cutter-Mackenzie, Moore & Boyd (2017) was also investigated. This model endorses three types of play: open-ended play, modeled play, and purposefully-framed play, which are two principles that all play-types have equal pedagogical value and can be used in multiple combinations.

Play is neither tightly structured by adults that children are denied the freedom to make their choices or exploration nor children are left to do what they want and anything. It needs to be a balance of child-initiated within in the presence of more

engaged teachers (Zosh et al., 2017). Miller and Almon (2009) assert that play has many faces and types, which often overlap in rich play scenarios. Kindergarten classrooms should have a repertoire with many forms of play, and all should be supported. However, there is an ongoing debate about where free play ends and guided play begins (Pyle & Danniels, 2016). Still this paper's objective is not to resolve that argument or set distinctions but to validate that learning and the holistic development of the child through play can happen. The practical implication of this will be discussed in the learning centers heading with a conviction that play can happen through free play, guided play, and games that will balance the child-adult involvement leading to the child's holistic development.

Play and Holistic Development

Petrie and Clarkin-Philips (2017) writes, "the opportunity for children to play is deemed critical for their overall development in all domains: physical, social, cognitive, mental/emotional, and spiritual" (p. 504). The Lego Foundation in support of UNICEF (2018) explains that when children choose to play, they are not thinking 'now I am going to learn something from this activity' (p. 8). Yet their play creates powerful learning opportunities across all the areas of development. It continues to elaborate that "development and learning are complex and holistic, and yet skills across all developmental domains can be encouraged through play, including motor, cognitive, and social, and emotional skills, indeed, in playful experiences, children tap a breadth of skills at any one time" (p.8).

Weisberg et al. (2016) note that there is abundant literature available on domains and view of learning through these domains such as physical (fine and gross motor skills), social (relationships and empathy), emotional (development of self-control), creative (divergent thinking and expression), and that this broad view of learning is a tremendous step forward in understanding. Brown (2014) also explores domains of physical development and health, social and emotional development, communication, language and literacy, cognition and knowledge of the world as domains of child development that represent the overarching areas of early childhood education essential for long-term success. There are certainly some additional developmental domains and similar domains with interchangeable names used by various educationists and researchers; however, in this paper, four domains will be reviewed in the context of play, and holistic development of children is physical, social-emotional, cognitive, and language development.

Seeing these developmental domains as separate from each other is misleading and doesn't serve the purpose, says Weisberg et al. (2016). Brown (2014) rightly puts it as distinct but highly interrelated (p.37). Karaski, Tamis-LeMonda, and Adolph (2015) beautifully explain that research has been increasingly and consistently showing that these different domains of development are not silos as much as they are interconnected gears: one area of development can impact the other area of development. For example, physical development lays the foundation for later cognitive and social skills. A whole new world opens to a toddler who learns to walk instead of crawling. Now, he can hold a toy with ease and go in search of his caregiver, gaining

access to new interactions, language, and play. Therefore, even though four domains, physical, social-emotional, cognitive, and language will be reviewed separately below, the underlying assumption is that all four domains lead to the child's holistic development through play, and they are interconnected. Their practical implication in the forms of learning centers will be discussed later in this paper.

Play and Physical Development

Physical activity is fundamental to the early development of a child and affects many aspects of child's health (King et al., 2003). UNICEF (2017) confirms that "early childhood is the most critical and rapid period of motor and cognitive development in human life." Contemporary health organizations like the US Department of Health and Human Services (2008), World Health Organization (2017), National Institutes of Health (2016) have proposed that higher levels of physical activity in children are associated with important short- and long-term health benefits in physical, social, emotional, and cognitive domains across the life span. It is suggested that promoting physical activity in the early years of childhood develops motor skills (Timmons, Naylor & Pfeiffer, 2007) and lack of it is closely linked with incidence of chronic diseases and a lower quality of life (US Department of Health and Human Services, 1996; Zaza, Briss & Harris, 2005). This is further echoed and validated with evidence by researchers like Fisher et al. (2005), Williams et al. (2008), Iovnen et al. (2013), Trevlas, Matsouka, and Zachopoulou (2003) by reciprocal and cross relationships between physical activity and motor development. Motor skills in young children are linked with various health benefits such as cognition (Van der Fels et al., 2015), self-esteem (Ulrich, 1987), cardiorespiratory

fitness (Okely et al., 2001), adiposity (Okely et al., 2004) among many others. Hence physical development during the early years of childhood is a priority, and its implementation is only most effective through play. Also, emerging evidence suggests that active children tend to have better health and cognitive outcomes than less active children (Timmons, Leblanc, & Carson et al., 2012). More physical activity may provide better motor and cognitive benefits across childhood and adolescence (Fisher et al., 2011; Riethmuller et al., 2009).

Therefore, it can be concluded that physical development is vital for the healthy growth and development of early childhood children (Skouteris et al., 2012). For early childhood children, physical activity and development are associated with various developmental outcomes such as healthy weight status, motor development, fitness, and bone health (Carson et al., 2017; WHO, 2017). Petrie and Clarkin-Philips (2017) assert that play experiences provide opportunities for physical development, which are meant for children in relation to their abilities and interest emphasizing development rather than education.

Play and Social-Emotional Development

"All the higher functions originate as actual relationships between individuals" (Vygotsky, 1978, p. 57). Vygotsky (1976, 1978) argues that learning precedes development and that phenomenon is defined as a zone of proximal development. According to him, the zone of proximal development allows learners to accomplish tasks with the help of social interactions and cultural tools. Play facilitates children to reach the top of their current zones through social interactions. Likewise, Bronfenbrenner

(2005) proposes that a child's development is influenced by the environment and people with whom they interact. This provides additional support that learning and development happen through social relationships and interactions between the children and the people in their environment. Social competence and emotion regulation, in turn, underpin children's cognitive skills (McClelland, Acock & Morrison, 2006). Gray (2011) argues that social play with other children serves a variety of developmental functions that promote mental health. Lack of that, children fail to acquire the social emotional skills that are crucial for healthy psychological development.

Play gives children the opportunity to explore ideas, experiences, and surroundings (Piaget, 1962), and practice social interactions (Fisher, 1992). Through play, children develop understandings about their social environment and the skills that are necessary for successful assimilation into the adult world (Paget, 1962; Vygotsky, 1967). Children are intrinsically motivated to play, which makes it fertile ground for learning and developing new skills. During play, children can take charge, making choices about what they do and how. Play can be a highly social activity, allowing for opportunities to learn from, and about others. (Zosh et al., 2017).

Saarni (1990) emphasizes in her rich account of 'emotional competence', "how children respond emotionally, yet simultaneously and strategically apply their knowledge about emotions and their expression to relationships with others, so that they can negotiate interpersonal exchanges and regulate their emotional experiences as well" (1990, p. 116). Hubbard and Coie (1994) state that children who manage their emotional experience in the context of emotionally arousing types of play are more

successful in peer relationships. Maintaining social relationships is an integral part of being human. Individuals who are unable to maintain effective, satisfying social interactions not only have difficulty completing basic life tasks but are also at risk for a plethora of mental and physical health problems (Gottman et al., 1996). From a social constructivist perspective, play enables children to build and extend their knowledge and skills as they interact with their environment, with others, and on their own (Glover, 1999). As the child's social world expands, emotional expression comes to serve an important communicative role, providing information about the child's intentions and feelings (Halberstadt et al., 2001). This means that a child's ability to properly express his/her emotions is essential because the experience and expression of emotion not only affects a child's behavior but also provides information to others about whether to engage the child or retreat from further interaction with the child (Denham, 1998). Smiley and Huttenlocher (1989) explain that children need to experience different emotions to construct social scripts about emotions because they first reflect on and make judgments about their emotions, and then generalize these judgments to other's feelings.

Research shows that children who engage in complex forms of socio-dramatic play have greater language skills than nonplayers, better social skills, more empathy, more imagination, and more subtle capacity to know what others mean. They are less aggressive and show more self-control and higher levels of thinking (Miller & Almon, 2009). In sum, they recognize the developmental significance and appropriateness of play in promoting children's socioemotional development, and engaging in practices

that scaffold children's experiences and socioemotional skills during play (Ashiabi, 2007).

Play and Cognitive Development

How well one learns depends on brain development, which relies on environment and inherited genes. The brain possesses, uses, and interprets information and knowledge it receives from instructional, physical, emotional, cognitive, social, and other experiences (Catalano & Madray, 2010). Khan and Hillman (2014) write early childhood is marked as the most critical and intensive period of brain development throughout the human lifespan. They further elaborate that healthy brain development during this period facilitates optimal cognitive development and lays the foundation for future cognitive and academic accomplishments. Therefore, understanding and promoting the factors that support a healthy brain and optimal cognitive development across domains in early childhood is of great importance (Carson et al., 2016). Add to this Gray's (2009) synthesized definition of play as self-chosen and self-directed, intrinsically motivated; structured by mental rules; imaginative; and produced within an active, alert, and non-stressed mental state. A growing body of research that shows a link between play and cognitive development are prerequisites for learning more complex concepts (Bodrova & Leong, 2005).

The challenge is to implicate motivation into learning through play and recognize that play has an important cognitive role (Rieber et al., 1998). According to Reiber et al. (1998), play is a crucial process that contributes to learning throughout the lifespan. Play

serves to motivate learning in addition to contributing to cognitive development. As educators, Reiber et al. (1998) connected play as motivation for learning.

The Lego Foundation (2017) summarized playful learning experiences related to cognitive processes from neuroscience literature as joy, meaningful, active engagement, iterative, and socially interactive. A rich body of literature establishes the neural correlations of the different facets of learning that align with the five characteristics of playful experiences. They argue that the mechanisms described in the literature show a generally positive cycle. These neural networks serve to prepare a child's brain for further development (Puschmann et al., 2012). Thus, it can be concluded that play for the cognitive development of the child that is joyful, meaningful in what they are doing or learning, involves active engagement, iterative thinking, and social interaction can provide children with the foundations for lifelong learning.

Play and Language Development

Language is a tool of communication. Through language, a child can develop social skills, and mastery over the social environment is possible through language skills (Astuti, 2015). Tsao (2008) believes that children develop language from hearing language around them. Children constantly use language when they are playing. Social interactions involving language that children use during play helps construct their literacy knowledge. Play and language formation have a relationship in early childhood development (Vygotsky, 1976). Because of this early relationship, it can be reasoned that activating the brain centers is related to language development. Abundant research has confirmed that early childhood is a critical period for developing language skills,

including learning to understand and speak the language (National Research Council, 2000; National Scientific Council on the Developing Child, 2007). Research also suggests that neural networks of language acquisition begin in utero, confirming that infants' brains are programmed to learn the language (Kisilevsky et al., 2009; Perani et al., 2011). Throughout the first three years of life, 85% of all language neuron connections are formed in response to environmental experiences and social interactions (National Research Council, 2000). Evidence also indicates that a child's vocabulary at the age of three is a key predictor of child's ability to read at third grade, which is a powerful predictor of subsequent academic success; children who cannot read at grade level by the end of third grade are four times more likely to drop out of high school than those who can read (Dickinson & Porche, 2011; Fiester & Smith, 2010; Rowe et al., 2012).

Vygotsky (1931) makes a compelling case for the enduring effect of play on language skills. Language learning is critical for a child's developmental path. Zauche et al. (2016) argue that language skills enable a child to communicate with others in their environment, which encourages cognitive skills development and promotes socio-emotional regulation through social interactions. They recommend laying the strongest possible foundation for language development and proficiency to language-rich interactions.

All children can develop a strong foundation for literacy and reading development when they are provided opportunities to engage in purposeful, meaningful language activities (Brown, 2014). Children who have opportunities to develop foundational skills in the language during their early years are ready to learn,

read, and write (Ballantyne et al., 2008). Reynolds, Stagnitti, and Kidd (2011) assert that children attending play-based school had more highly developed language abilities, narratives, complex play, and peer social competence. The findings validate that play increases the abilities associated with emergent literacy skills.

Language development is crucial for so many reasons: Language helps children interact with peers in positive ways (Ayoub et al., 2011); Montessori and Claremont (1967) insist that not reflecting on language development may fail to see the connection with social life. She beautifully writes, 'language is an instrument of *collective thought*' (p. 115), 'there would be no such thing as a civilization without language' (p.123); Therefore, when children play and communicate through play, they learn how language works and acquires understanding how to interact with people in the environment. Eventually, children connect verbal language to written, which is key to school success (Mielonen & Paterson, 2009). This phenomenon helps understand the importance of language development through play.

Play as Curriculum in Early Childhood Education

Finland consistently gets the highest scores on the respected international PISA exam for 15-year-olds, even when their children enter first grade at the age of seven rather than six. Miller and Almon (2009) reason that it is because children enjoy a lengthy, playful early childhood. Research in early childhood education supports the role of play as an important modality of learning and psychological development (Ashiabi, 2007; Bredekamp & Copple, 1997; Eisert & Lamorey, 1996; Hirsh-Pasek et al., 2009). Therefore, play as curriculum and pedagogy is central to early childhood education.

Melhuish (2016), emphasizes that for early childhood education to be implemented qualitatively – programs (what), physical environment of service (where), and staff (who) are critical; Gifford (2014) establishes interdependence between psychological, social, and physical dimensions in early childhood environments. All these are intertwined. Therefore, this section of paper will be explored in three parts: play-based curriculum (programs and psychological dimension); learning centers and outdoor spaces (physical environment of service and physical dimension); and the role of teachers (staff and social dimension).

Play-based Curriculum

Play has been traditionally viewed as having developmental purpose in childhood (Froebel, 1887; Groos, 1901; Piaget, 1976; Piaget, 1991; Smilansky, 1990; Vygotsky, 1976). Vygotsky (1976) argues that play must have developmental purposes rather than fun or pleasure because lack of play can lead to suffering. He insists that much of play research relates to the developmental nature of play.

Kindergarten has become less of a setting for creative thought, free exploration, pretend play, and more of a structured setting with rigorous requirements to prepare children for future standardized assessments. With pressure from parents, government, teachers are spending less time fostering these diverse elements of development and focusing more on academics (Ray & Smith, 2010). Graue (2010) attempts to balance this by asserting that the early childhood curriculum should build on a child's experiences, needs, and interests in a way that will enhance all domains of development and is aligned with expectations. Zosh et al. (2017) writes, "the tools for enhancing and

strengthening children's learning are already available in our homes, communities, and classrooms. The answer is, in essence, as simple as child's play" (p. 12).

Play-based curriculum can have many forms and shapes. Graue (2010) explains two types of play are useful in early childhood environments: free play initiated by children and teacher-initiated learning experiences guided by an adult. This will allow children to choose their own level of challenge and also be stretched by adults in a low-stress environment. This makes play meaningful, authentic, and intellectual in content. Miller and Almon (2009) advocate to make room for all types of play. They give a lovely example of how a child climbing a tree is different from building a house with sticks and stones or dressing up for make-believe play. Yet when the child is up in the tree, she may well become a pirate surveying the sea around her. There are different types of play and they often overlap in rich play settings. A rich kindergarten supports them all. UNICEF (2018) articulates play in many forms: play with objects; imaginary play; play with peers and adults; solitary play; cooperative play; associative play; physical play. They consider play as children's work and is the vehicle through which children acquire knowledge and skills, allowing children to engage independently and with others. By positioning play as central to children's development, a non-threatening environment for children to learn at their own pace is created (Rushton et al., 2009). Play in early childhood curriculum should be conceptualized in terms of creativity, adaptation, exploration, experimentation, learning, communication, socialization, acculturation, and mastery (Piaget, 1962; Schwartzman, 1978, Vygotsky, 1978).

Miller and Almon (2009) explain that including all types of play in kindergarten does not mean anything goes. It should not deteriorate into chaos. Nor is play so tightly regulated by adults that children are denied the opportunity to explore and learn on their own. These children need a balance of child-initiated play in the presence of engaged teachers with more focused experiential learning guided by teachers. They explain further that a balanced schedule of play in early childhood classrooms should be strengthened for indoors and outdoors. They also recommend that three out of six hours (50%) should be play sessions, with at least one being outdoors. This gives children adequate time to explore and develop their ideas, interests, and capacities. They present an astonishing case study of play-based Kindergartens in Germany that were changed to centers of cognitive achievement during a wave of educational reform in 1970s. But research comparing 50 play-based classes with 50 early-learning centers found that by age ten the children who had played excelled over the others in a host of ways. They were more advanced in reading and mathematics and they were better adjusted socially and emotionally in school. They excelled in creativity, intelligence, oral expression, and academics. As a result of this study German kindergartens returned to being play-based again.

The play-based curriculum should focus on child-centered learning, children should be empowered to direct their own learning, and are free to make choices (Morrow, 1997; Stahl, 1999; Weaver, 1994). An important aspect defined by Zosh et al. (2017) is that play is children's agency meaning initiative, decision-making, self-choice, and control over the experience. Froebel created "a child's garden" in 1837 for children

between the ages of three and seven to develop their mental, social, and emotional faculties through play, music, movement, interaction with the outdoors, and opportunities to engage in independent and creative pursuits (Shapiro, 1983). This clearly indicates that the subject of play in early learning experiences is important, and balance should be created for all types of play in early childhood curriculum.

Learning Centers

Berti, Cigala, and Sharmahd (2019) presented results of 88 studies confirming the role of space as an educator. They assert that the physical environment affects children's behavior, cognition, and emotions contributing to their development and conditioning their experience in educational services. The quality of preschool environments may contribute to the prevention of children's social-emotional problems (Mohamed & Marzouk, 2016). Wood (1999) suggests that the school curriculum should be child-centered, suitable for children's age, and developmental level that cater for their individual interests. Learning centers in early childhood classrooms meet this requirement.

Learning centers are different interest areas where similar materials are grouped to encourage children to participate in specific experiences (Norris et al., 2004) and provide various materials and opportunities for learning by doing (Copple & Bredekamp, 2006; Epstein, 2007). A learning center is a defined space where materials are organized in such a way that children learn without the teacher's constant direction (Patillo & Vaughan, 1992). Wilson (2015) explains that the learning center refers to a specific space or area of the classroom that is designated for specific play-based activities

aligned with learning objectives. Learning centers allow children to develop their independence, risk taking, perseverance, initiative, creativity, reasoning, and problem-solving skills (Heromen & Copple, 2006). Centers provide children with ample opportunities to make choices, working with others, being engaged, and involved in hands-on activities (Bottini & Grossman, 2005).

Cryer, Harms, and Riley (2003) recommends that high-quality early childhood settings should include at least five different learning centers that provide diverse learning experiences. They also stated that the materials in the learning centers should be easily accessible so that each child can use them independently. Wilson (2015) explains that each learning center's activities should be based on the children's social, physical, cognitive, and linguistic growth, as well as the school curriculum. These areas included art, library, writing, music, computers, dramatic play, table games, discovery, and gross motor areas. National Association for the Education of Young Children (NAEYC, 2009) has recommended that early childhood education focus a substantial amount of time on child-selected and child-led activities. Patillo and Vaughan (1992) recommend that learning center activities include dramatic play, blocks, science, math, games, and puzzles. Madray and Catalano (2010) indicated that young children with appropriate and stimulating environmental experiences, their neurological, cognitive, brain, physical, and motor skills abilities are enhanced. Wilson's (2015) research findings indicate that the high ability children were more likely to select centers independent of their peers. Learning centers create an environment that facilitates children's self-directed learning, rather than the teacher being the focal point of the learning activity.

In a learning center classroom, only a small amount of time is spent in total-group situations. In a learning center classroom, children work independently or in small groups with the various materials and activities available. The teacher moves around the classroom to the various centers and becomes involved in activities for short periods of time (Patillo & Vaughan, 1992).

Wilson (2015) codes learning centers as per developmental zones of cognitive (non-play, functional, dramatic, constructive, and games with rules), social (solitary, parallel, associative, and cooperative), literacy-based (library, reading, and writing), and arts-based (art and music). Learning centers should be organized according to the needs, interests, and skills of children; and should be adaptable and flexible, says Ramazan, Ciftci, and Tezel (2018). Learning centers are also highly physical as children are moving from one center to another doing hands-on activity. These findings clearly indicate that learning centers as an implementation tool for play-based curriculum can lead to holistic development of children.

Outdoor Spaces

This literature review will be incomplete if play is not explored in outdoor spaces. In relation to outdoor playgrounds, Brown and Burger (1984) advocate that it promotes more cognitive and socially complex behaviors. The quality of physical environment and outdoor spaces has been linked to developmental outcomes in early years, by influencing behavioral, cognitive, and emotional aspects (Evans, 2006). Patillo and Vaughan (1992) write that children are expected to be physically and mentally active in an early childhood environment. When children play outside, they seem to perceive a

greater sense of freedom, more independence, and more opportunities for socializing (Cullen, 1993). A 2016 review correlates children's physical activity and sedentary behavior to find out that the most significant influence was outdoor physical environment (Tonge et al., 2016). The presence of outdoor spaces has also been demonstrated to improve motor competence such as balance and coordination (Fjortoft, 2001). Early childhood settings with outdoor play areas provide important intervention opportunities for increasing physical activity and improving the health and development of young children (Maitland et al., 2020).

Dahlberg, Moss, and Pence (2007) oppose the idea of reducing the offering of physical activity to promote '*schoolification*' (p.515) of early childhood. Gray (2011) noted that free play shrank 25 percent between 1981 and 1997. Children are having fewer chances to play outside school and less time in school. He also quotes a survey study (Singer et al., 2009) that indicates that children still prefer to play outdoors with friends when they have the chance. 54 percent of mothers reported that playing outside at a playground or park ranked among the activities that made their children happiest. Outdoor play outranked all other activities, including watching television, films, or videos (41 percent), and using electronic games (19 percent). Literature consistently reports that increased outdoor physical activity time in school has no detrimental effect on academic performance and may even enhance academic attainment, executive functions, and social behaviors (Booth et al., 2013; Doneelly et al., 2009; Hilman et al., 2008; Kamijo et al., 2011; Mahar et al., 2006). Increased outdoor physical activity time in school will improve attention processes, while inattention and hyperactivity symptoms

seem to decrease (Berti et al., 2019). Brussoni et al. (2017) also note that natural outdoor spaces increase physical activity, independent play, quality of social behavior, and decrease in prosocial behaviors. Lastly, a positive relation was found between the number of hours spent outdoors and children's attention, and a negative relation was found between the number of hours spent outdoors and inattention and hyperactivity symptoms (Ulset et al., 2017).

Outdoor spaces that are intentionally designed for child-directed and initiated play in nature improves choice-making, problem-solving, engagement, and self-regulation (Kochanowski & Carr, 2014). Giusti et al. (2014) also noted that children in a natural outdoor environment in preschools were more empathetic, concerned for non-human life forms, and more aware of human-nature interdependence. Empathy, choice-making, problem-solving, and self-regulation improve in natural outdoor environments (Berti et al., 2019). Focusing the outdoor spaces, Shim et al. (2001) and Cullen (1993) observed that preschoolers were more inclined to engage in functional and dramatic outdoor play rather than indoors. Play is the main type of play in outdoor spaces. Miller and Almon (2009) indicates that authentic child-initiated play does not follow a script, it is spontaneous, and ever-changing. Such an environment is outdoor spaces where children's play is valued, they gain confidence, and are in control of their bodies argues Petrie and Clarkin-Philips (2017). They further assert that having the freedom to explore an environment without unwarranted restrictions enables a child to become absorbed in achieving their goals, whatever that may necessitate. It has also emerged that physical spaces and environment affects social-emotional aspects in children's

development (Mohammed & Marzouk, 2016). Physical education centered around unstructured play and holistic notions of child development, wellbeing, and health imperatives should be standardized, recommends Petrie and Clarkin-Philips (2017). It can be safely concluded outdoor spaces provide a variety of experiences and demonstrate holistic developmental roles – physical, social, cognitive, and language that are critical to early childhood development.

Role of Teachers

Graue (2010) writes, "in the hands of a skilled kindergarten teacher, play is a rich laboratory that can be used to teach multiple concepts simultaneously in a way that differentiates instruction" (p.15). She continues to explain the role of a teacher as someone who values play and shares control with children. Teachers and administrators must understand what play offers young children and be able to speak clearly about it (Wenner, 2009). The teacher should choose the materials carefully to support the educational objectives for each center (Heromen & Copple, 2006). Teachers should constantly monitor children's interest in learning centers and regularly change the materials to maintain children's interest to support ongoing progress (Pike-Wilkie et al., 2008).

Teachers should take an active role in scaffolding play. They should not be directing play, instead, enrich experiences by providing feedback, social interactions, and bringing relevant resources (Graue, 2010). Ashiabi (2007) contends that teachers have to recognize the developmental significance and relevance of play and engage in practices that scaffold play. This implies that there is a role for child-initiated and

teacher-guided play. However, it appears that it is the child-directed play, rather than the teacher-directed play, that is associated with a balanced development of all domains in kindergarten students (Gmitrova & Gmitrova, 2004). The role of teachers in the early childhood environment is to enable and scaffold play and learning – this requires careful and thoughtful planning, and spontaneous communications building on natural inquisitiveness and ideas of children (UNICEF, 2018). Researchers find that teachers arrange learning centers creatively in the classroom where all children are busy doing a task with creative materials but they have different degrees of choice, ensures that children play an active role in problem-solving tasks, and promotes children's executive functions. The greatest opportunities for stretching their 'thinking muscles' come when they are allowed to produce and develop a city from their own idea to a final product (Hammond et al., 2012; Matte-Gagné et al., 2015). Children have the quirky knack of bringing the curriculum into their play, and teachers should be present to capitalize on any unexpected learning opportunity (Graue, 2010).

Daniels and Shumow (2003) advocates the idea of agency in play where children learning through play means seeing children capable rather than a blank slate to be filled. Therefore, teachers should arrange learning centers according to the needs, interests and skills of children writes, Ramazan and Tezel (2018). They further mention that centers should be flexible and adaptable. At each center there should be open-ended materials that are developmentally appropriate and new materials should be added every two to four weeks. They also recommend that new learning centers be developed and to revise existing centers based on their observations and needs of

children. As children play in learning centers, the role of a teacher is to observe what children do and to act when they see opportunities to improve children's discoveries, play, and problem-solving skills (Heromen & Copple, 2006). Beri et al. (2019) presents a perspective that identifies adults and children as co-constructors of the environment. They emphasize that adults need to be aware of their environment and their perceptions of play to allow children freedom and exploration. Within the play-based curriculum, the teacher's role is to know how and when to provide opportunities for children to extend their abilities or when to leave them to work independently (Saracho, 2002).

CHAPTER III: DISCUSSION AND SUMMARY

Summary of Literature

The summary will be written in three parts, answering three major questions of literature review. The first question was, *what is play and its importance in the early years?* During this research, several benefits of play have been explored and validated. Play has been conceptualized as creativity, socialization, acculturation, mastery, collaborative, intrinsically motivated, pleasurable, freely chosen, non-literal, actively engaging, opportunistic, episodic, imaginative, for the moment, and more with means than ends (Golinkoff and Hirsh-Pasek, 2016; Piaget, 1962; Rubin et al., 1983; Schwartzman 1978; Sturgess, 2003; Vygotsky, 1978; Zosh et al., 2017).

Though abundant research evidence is available supporting the importance of play and its central role in early childhood, play is being reduced in early childhood classrooms due to mandated strict standards and academic policies, lack of awareness of importance of play among teachers and parents, and policy makers (Bassok et al., 2016; Elkind, 2007; Graue, 2010; Gray, 2011; Hirsh-Pasek et al., 2009; Leseman et al., 2001; Myck-Wayne, 2010; UNICEF, 2017). Play is the most developmentally appropriate way for children to learn; it facilitates problem-solving, perspectives, emotional and social skills, cooperate, negotiate with others, takes turns, self-control, work with peers, get along with others, engage in conversations with peers without interruption, innovation, creative thinking, regulate their emotions, resolve conflicts, learn self-advocacy, build resilience, deal with challenges in environment, and conquer fears (Ashiabi, 2007; Bailey, 2002; Bredekamp & Copple, 1997; Gray 2011; Hartup, 1992;

Leseman, Rollenberg & Rispens, 2001; McArdle, 2001; Miller & Almon, 2019; Wood, Milteer & Ginsburg, 2011). Play lays a strong foundation for critical, positive, and healthy physical, social-emotional, cognitive, and language development.

As mentioned by various educationists and researchers, play has many faces and types. They have equal pedagogical value and can be used in multiple combinations which often overlap in rich play scenarios – free play, guided play, games, open-ended play, modeled play, and purposefully-framed play, to name a few (Miller & Almon, 2009; Moore & Boyd, 2017; Pyle & Danniels, 2016; Zosh et al., 2017). They also advocate that it needs a balance of child-initiated, child-led, and child-choice but in the presence of an adult and adult scaffolded.

The second question that was primary to this literature review was *whether play impacts the holistic development of children?* Development and learning in early years are holistic and cuts across developmental domains. Holistic development of child is beautifully categorized and synthesized by Brown (2014) that are 'developmental and interrelated domains' in early years: "physical development and health; social and emotional development; communication, language and literacy; and cognition and knowledge of the world. These domains of child development represent the overarching areas of early childhood education that are essential for school and long-term success" (p.37-38). Holistic developmental domains like physical (fine and gross motor skills), social (empathy and theory of mind), emotional (development self-regulation and even self-conscious emotions), and creative development (divergent thinking, making and expressing) have been validated by educationist and researchers and also confirmed

that they are interrelated (Evans 2006; Gifford, 2014; Guo et al., 2012; The Lego foundation, 2018; Weisberg et al., 2016). Furthermore, play is seen as a facilitator in the process of children accessing the highest level of their zones of proximal development (Scheu & Xu, 2014; Vygotsky, 2005).

The final question that guided this literature review was *how to implement play in early childhood education?* Research in early childhood education supports the role of play as an important modality of learning and development purpose (Ashiabi, 2007; Bredekamp & Copple, 1997; Eisert & Lamorey, 1996; Froebel, 1887; Groos, 1901; Hirsh-Pasek et al., 2009; Piaget, 1976; Piaget, 1991; Smilansky, 1990; Vygotsky, 1976). Therefore, play as curriculum and pedagogy is central to early childhood education. The play-based curriculum should focus on child-centered learning; children should be empowered to direct their own learning, free to make choices, and creative pursuits (Morrow, 1997; Shapiro, 1983; Stahl, 1999; Weaver, 1994; Zosh et al., 2017). Three main characteristics to implement play-based curriculum in classrooms are – play-based curriculum (programs and psychological dimension); learning centers and outdoor spaces (physical environment of service and physical dimension); and role of teachers (staff and social dimension) (Gifford, 2014; Melhuish, 2016).

Early childhood programs' quality can be determined by its environment and space (Berti et al., 2019; Mohamed & Marzouk, 2016). Learning centers and outdoor spaces will be the highest contributing factor in early childhood environments. Learning centers are different interest areas where similar materials are grouped, providing opportunities for learning self-initiated exploration, without teachers' constant

direction, and play-based activities aligned with learning objectives (Copple & Bredekamp, 2006; Epstein, 2007; Patillo & Vaughan, 1992; Norris et al., 2004; Wilson, 2015). Learning centers have been proven to develop risk-taking, initiative, creativity, reasoning, decision making, collaboration, and engaging (Bottini & Grossman, 2005; Cryer et al., 2003; Heromen & Copple, 2006). Learning centers should correlate with child's developmental domains and activities in the areas of art, library, music, computers, dramatic play, pretend play, and free play can be set up in early childhood centers (Cryer et al., 2003; Madray & Catalano, 2010; Patillo & Vaughan, 1992; Wilson, 2015). Play in outdoor spaces indicates improved physical, social, emotional, and cognitive behaviors (Brown & Burger, Cullen, 1993; Evans, 2006; Fjortoft, 2001, 1984; Maitland et al., 2020; Patillo & Vaughan, 1992; Tonge et al., 2016). Outdoor play improves choice-making, decision making, problem solving, engagement, resilience, empathy, and independence (Berti, Cigala & Sharmahd, 2019; Cullen 1993; Giusti et al., 2014; Kochanowski & Carr, 2014; Shim et al., 2001). It can be safely concluded that learning centers and outdoor spaces provide various experiences and demonstrate holistic developmental roles – physical, social, cognitive, and language that is critical to early childhood development.

The role of teachers is crucial in the implementation of a play-based curriculum in early childhood environments. They need to understand what play has to offer, chose the material carefully for each center, thoughtful planning, share control with children, monitor children's interest in learning, build upon on child's inquisitiveness, and scaffold

play (Ashiabi 2007; Graue, 2010; Heromen & Copple, 2006; Pike-Wilkie et al., 2008; UNICEF, 2018; Wenner, 2009).

Limitations of the Research

With the huge bank of literature available through Bethel library, electronic databases were searched. No study date limits were imposed. To locate the literature for this thesis, education journals, ERIC, International Baccalaureate journals, and research papers, and peer reviewed articles were widely used. The review of literature for this study was focused on three broad categories: defining play, play and holistic development, and implementation of play as a curriculum in early childhood education. There was an abundant amount of information about play and its benefits in early childhood. Play In its broader sense, its benefits, and types were easily available. Play was coded on the levels of physical, social-emotional, cognitive, language domains.

However, it was challenging to locate information directly related to play and learning centers corresponding to developmental domains. This cross-referencing of learning centers and developmental domains as mainstream curriculum in early childhood classrooms was a challenge. There were also different opinions about which type of play needed to be included in early childhood classrooms based on their power – free play or guided (Pyle & Danniels, 2017). This idea was not researched in detail as the focus of the paper was impact of play and not a particular type of play. This area can be another research study on its own.

Furthermore, Graue (2010) acknowledges that 21 percent of five-year-olds attending kindergarten in 1950 has now changed to nearly 100 percent fifty years later.

But this holds true for countries like the USA. This is not relevant in the context of Uganda where early childhood enrollment stands at less than 10% (Ministry of Education and Sports, 2014). Still, contexts like Uganda have to heavily rely on foreigners' research studies and upon foreign students given lack of human resource and research made in local contexts. However, it cannot be denied that play plays an important developmental role in early childhood irrespective of any demography.

Finally, the studies included had two sources of data – neuroscience and observational. Most of the research studies in this paper were based on observational data and less of neuroscience sourcing. This can be another focus area of future study to explore how play unswervingly impacts or correlates the healthy development of the body and mind of the child.

Implications for Future Research

From the research and literature review undertaken for this paper, it can be concluded that more research is required in the areas of implementation part of play in early childhood classrooms. Knowing the benefits of play in early childhood, is that being implemented in the classrooms? If yes, then the quality and quantity of play can be assessed. Also types of play and its impact can be researched. If not, then what are the specific factors for lack of implementation?

Another area for future research is the neuroscience explaining how play supports learning. It is important because qualitative observational data can only be backed up and validated through quantitative experiment-based and neuroscience evidence. As much is written about development in early childhood years and the

importance of play in the early years, a correlation between two was not easy to find.

More research is needed in this area. This particular aspect has made me curious and I would like to read more to validate the importance of play for the developmental needs both qualitatively and quantitatively.

Lastly, especially for African and more specifically Ugandan context, research in Uganda's early childhood centers will be more helpful to understand how play is impacting the nature and holistic development of the child in this context. Another area of research can be limitations in implementing play-based curriculum in early childhood centers in Uganda and how they can be mitigated.

Implications for Professional Application

It is discussed above in detail how play is falling out of foundation in early childhood centers due to academic pressure or lack of awareness in adults. By adults, here I mean, teachers, school administration, and parents. Therefore, in this section, professional application will be discussed at three levels who are directly responsible for children's learning and development in early years.

Implications for Teachers

Teachers need to understand and be aware of what play has to offer and make opportunities available to children in their classroom. They are also primarily responsible for building the environment. That means, they create learning centers on a regular basis and provide children with ample opportunities for play. They also need to ensure they balance guided play and free play. This means that children are not restricted to the opportunity to learn through their own initiative and exploration but

creating a sense of balance between children's choice of free play and experiential learning offered through guidance. The assumption here is that teachers in early childhood should be aware of the importance of play, see value in play, and able to use play as instruction in their teaching pedagogy. It is also expected that they receive support from parents and administration to be able to model their classrooms as play-based without pressure of rigorous academic accountability. Therefore, a serious awareness among teachers is very critical if play-based curriculum has to be implemented in early childhood classrooms.

Implications for Administrators

Lack of awareness in school administrators, principals, education officials, and policy makers about what play has to offer can be a big hindrance in offering play-based curriculum at early childhood centers. They may not realize the critical role of play in building children's developmental domains. Administrators not only have to understand the role of play, but also invest in training teachers and parents. This will have both – financial and human resource implications for administrators. They also have to speak clearly about the instruction of play-based curriculum implemented at school to their parents. They should not succumb to the pressures of parents who may not see play and learning as complimentary but opposites.

Implications for parents

Parent-school shared partnership will be required in understanding how a child develops through play during early years. This means teachers and school administration have to educate parents about play-based curriculum and how it helps

children develop holistically that in turn will yield better academic results as well as growth. Parents also have to play a positive role in understanding their children better and what is more developmentally appropriate in long-term.

All the above implications for teachers, administrators, and parents will require abundant education and awareness about the importance of play. As an early childhood educator and administrator in my professional and voluntary setting, I see myself creating impact for more than 250 children between birth to five and their families, more than 15 professional teachers, and approximately 30 voluntary teachers. This is a small drop in the ocean. If more professionals come forward, more schools accept play-based curriculum, and all trained professionals and volunteers turn into advocates of play-based curriculum then impact can be extended, ascended, and play will be accepted more as a developmentally appropriate mode of instruction in early childhood education.

Conclusion

Play has been highly viewed as the primary means in which children make sense of the world (Piaget, 1962; Vygotsky, 1967). Research provides persuasive evidence that play can build strong foundations for physical development, fine and gross motor skills, and health (Bjorklund & Brown, 1998); social and emotional development by practicing social interactions; language development (Fisher, 1992); cognitive development (Brown, 2014), and most importantly it makes them happy (Gray, 2011). Given the holistic developmental significance that play offers in early years of the child, it is crucial to note that play is the most appropriate way to develop and learn for children in early

childhood classrooms. Play can be the most engaging and natural process. Play as a means of instruction in early childhood classrooms can be implemented through learning centers and outdoor play areas. Learning centers and outdoor play areas provide diverse learning experiences that can lead to holistic development of children and ample play opportunities. Within this play-based curriculum, the teacher's role is to provide opportunities to children to play independently, through guidance, and by balancing the act of free play and guided play. In conclusion, play-based curriculum is most critical and developmentally appropriate in holistic development and in realizing child's potential to give society a healthy, happy, social, caring, creative, intellectual, and responsible generation.

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