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Original Article

Effectiveness of Play-Based Learning Method in Promotion of Early Literacy Skills Among ECDE Children

Betty Cheruiyot, PhD¹*

¹ University of Eldoret, P. O. Box 1125 – 30100, Eldoret, Kenya.

* Author for Correspondence Email: bettycheruiyot77@gmail.com

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Literacy skills for children in their early years are critical to their cognitive development and future success in primary, secondary and higher education levels. Children acquire literacy skills early through listening and interacting through play-based activities both at home and school with their teachers, colleagues and parents. This paper looks at the effectiveness of play-based learning in promotion of early literacy skills among children in early childhood development education level. Specifically, the paper analyses the conceptual and theoretical perspectives of play-based learning and literacy skills acquisition by children through the theories of Maria Montessori, Vygotsky social constructivism theory and Jean Piaget cognitive theories. The study uses secondary sources of information for analysis based on the following objectives; types of play-based approaches used by teachers in ECD setting, teachers' role in the implementation of play-based learning and effect of play-based learning approaches towards promotion of early literacy skills by ECD pupils in schools. The paper has found out that acquisition of early literacy skills by learners was dependent on the degree to which teachers were utilising play-based learning methods in classroom. The review of studies has shown that majority of teachers are not using play-based teaching methods and hence promotion of early literacy skills for children was significantly affected. Further, time allocated for play-based learning processes was inadequate and majority of public ECD centres were found not to have adequate infrastructure and materials to support play-based learning. The paper recommends that teachers need to be supported in implementation of play-based learning through attendance of in-service training programmes and benchmarking sessions in other schools, schools to upgrade the infrastructure and instructional materials required to support play-based learning and education officials to conduct supervision of implementation of play-based learning in schools.

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INTRODUCTION

Early childhood is an important stage on child's life where development progress takes place and is seen through various stages of evolution action as the child developments physically, kinetically, cognitively, emotionally, and socially (Sakellariou & Banou, 2020). All these stages of growth and development of a child can be achieved through engagement in play activities in the indoor and outdoor settings. Play and early literacy skills are developmentally essential features of early childhood development education (ECDE). This is because in early childhood, development of literacy skills is important to children learning (Pyle et al., 2018). One of the objectives of ECDE is to support holistic development of a child in physical, social, cognitive and creative selves and this require a learning environment that is supportive (Ozturk & Ozer, 2021).

The importance of ECDE is captured in United Nations Sustainable Development Goals (SDGs) Goal No. 4 target 2 which seeks to ensure that all children have access to quality ECD (UNICEF, 2018). According to Coelho et al. (2017), play-based learning is an effective method in attaining the ECD objectives through contributing to holistic child development and learning of a child in early years in pre-school and lower primary school setting. This assertion has been supported from early theoretical works of Rousseau (1974) and Froebel who believed that play based learning performed an important role in the development of early literacy skills by children in pre-school setting (Mielonen & Paterson, 2009). This paper looks at the effectiveness of play-based learning in promotion of early literacy skills among ECD children learning from global and its application in the local context; Kenyan situation. At the end,

this article demonstrates the importance and effectiveness of play-based learning on children acquisition of early literacy skills in ECD settings and provides stakeholders with recommendations on how play-based learning can be fully implemented in ECD curriculum for the purpose of promoting early literacy skills of children.

Early Literacy Skills

Literacy skills are the capacity of a child to understand and interpret messages that is relayed from other people as a way of communication (Tsao, 2008). A child develops literacy skills from hearing language spoken in the environment they are in (Tsao, 2008). This means that literacy skills are developed from knowledge of language being spoken. The literacy skills are derived from the first days of a child's life. The early childhood years are critical in establishing a foundation for later literacy (Rand, 2021). Rand said that ECD is the stage where children develop understanding on literacy skills in the following areas; vocabulary development, oral language (speaking), listening comprehension, narrative competence, and phonological awareness. Mielonen and Paterson (2009) said that children developed literacy skills from what they hear being read (uttered to them) and what they see through the print resources. The development of literacy skills is critical to children's learning because these skills acquired would enhance child knowledge and facilitate learning and growth in schools (Pyle et al., 2018).

Early literacy skills perform an important role in a children's eventual capacity to read accurately and fluently in addition to comprehending what they have read in school (Farrell, 2019). Roskos and Christie (2011) stated that early literacy skills in ECD assist to prepare pupils to read, write and

have successful education beyond. This position is supported by Pyle et al. (2018) who discovered that children who develop early literacy skills earlier exhibit better academic performance during their ECD period and in the higher levels of education. Whereas the development of literacy skills forms the foundation of ECD in all education systems across the world, research study shows that children from low-income backgrounds are at risk of learning outcome difficulties, especially in early literacy skills in developing countries (Piper et al., 2015). Across sub-Saharan Africa, early literacy levels for ECD children are low (UNICEF, 2018). Dubeck et al. (2012) observed that poverty, ill health, limited access to instructional materials are the major hindrance towards children in ECD settings acquisition of early literacy skills. This paper examines the effectiveness of play based learning on ECD pupils' acquisition of literacy skills.

Play Based Learning

Play is a socio-dramatic interaction among children that is marked by reciprocal functions, imaginative use of language, symbolic representation, free choice, and episodes sustained over time (Rand, 2021). Play can also be defined as a variety of free, intrinsically inspired activities which are mainly related with enjoyment and pleasure amongst children. Bento and Dias (2017) states that it is an inherent impulse that is present in every child and is pleasing for every child. Play process is universal and flexible and there are no means of play as either right or wrong (Dogan & Boz, 2019). According to Syomwene and Mwaka (2018), the following are characteristics of play; play is enjoyable, play is freely chosen, play is intrinsically motivated, play is a natural activity for children, play is controlled by players, play is voluntary, play is process oriented not product oriented, play involves the use of role play, in play, children are effectively engaged and play occurs in a variety of settings. These characteristics of play together with their role in child growth and development are the focus of this paper on how teachers can use play-based method in promotion of early literacy skills by learners in ECD settings. The reason for play

amongst children is because it is critical for their development (physical), social development and permits for power, creativity and imagination (Griswold, 2018). Hence, children across the world including irrespective of their backgrounds have a right to play (Kithungu, 2019). Through the United Nations Convention on the Rights of the Child (UNCRC) (1989) which states that '...recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child...' Country members signatory to the convention have to ensure all provision of this charter are implemented to the latter. In Kenya, play is one of the learning areas in early childhood education (KICD, 2017).

Play based learning is teaching approach that involves the infusion of plays in teaching and learning process inside and outside the classroom (Griswold, 2018). This method of learning offers learners with enjoyable and meaningful means of exploring and learning the world around them (Tekyi-Arhin, 2023). Unlike conventional teaching approaches which depend on drills and rote memorisation, play based learning permit children to engage in hands on experiences which rekindle their problem solving, curiosity and creativity skills (Dogan & Boz, 2019). There are educational and developmental benefits to play-based learning when combined with teacher-directed instruction in ECD classrooms (Pyle & Danniels, 2016). Across Africa, play has been an important instrument in early children's socialisation and development (APHRC, 2023). Play based learning is important in ECD as it affects children emotionally, socially, physically and cognitively (Clark, 2020). Play-based learning is an essential activity in ECD since it can promote the holistic development of children in pre-school (Mitei & Mwoma, 2021). Bento and Diaz (2020) said that through play-based learning; children can solve problems, cooperate with others, think creatively, undertake experiment and get deeper understanding of the knowledge being in class. Children need to play while in school as it makes them to be active in school and live a

healthy life according to The American Academy of Pediatrics (Dogan & Boz, 2019).

The most important period of child development is from birth to 8 years old (UNICEF, 2018). In these years, children development of physical, cognitive, social, and emotional well-being is key foundation for their future success. ECD level (4 – 8 years) is considered the key stage of ensuring that the above-mentioned goals can be attained. Hence, play-based learning continues to be critical but it is normally ignored in favour of exam oriented academic teaching methods (Griswold, 2018). In Ontario Canada, Pyle et al. (2018) found out that simultaneous implementation of a play-based learning caused difficulties in the enactment of this instructional approach. In United States, play-based learning methods are being replaced by core academic studies and activities (Mielonen & Paterson, 2009). Clark (2020) found these as the key reasons for lack of use of play based learning method in curriculum; head teachers who do not value play in the classroom, of time to incorporate play activities and academic standardised curriculum.

In Kenya, Koech et al. (2019) found out that schools have reduced play-based learning approaches in their lessons to make room for other learning activities which are considered too beneficial. Further, Onyango et al. (2023) stated that teacher professional development programmes does not always focus on building skills in play facilitation in pre-service and in-service training. The above information shows that the implementation of play-based learning approach. Despite low usage in classroom setting across various areas of the world, play-based learning approach can transform the educational experiences of children in ECD and strengthen their early literacy skills (UNICEF, 2018). This paper examines the effectiveness of play-based learning approach on promotion of early literacy skills.

Study Rationale

Play-based learning performs an important role in the promotion of children literacy skills; communication and vocabulary skills through

being involved in classrooms games, singing games, rhymes, poems, role plays among others. This means that schools and teachers have to ensure that a learning environment provided should be rich of literacy interactions for ECD learners. The new competency-based curriculum which replaced the 8-4-4 system that was exam oriented has brought the impetus for schools that learners acquire necessary competencies in ECD level to enable them progress in higher level of education. The CBC curriculum recommends the use of play activities as a teaching approach for various learning areas (Syomwene & Mwaka, 2018). Amongst the learning areas in the ECD level of education (early years learning), play-based instruction falls under Psychomotor and Creative Activities in pre-primary while the approach falls under Movement and Creative Activities in lower primary level – Grade 1 to 3 (KICD, 2017). This means that for the objectives of the learning areas mentioned above to be achieved; play-based learning needs to be used in school by teachers. Teachers in ECD setting are encouraged to use play as a method of teaching-learning process in their class (Kithungu, 2019). The effectiveness of this teaching method towards promoting early literacy skills for children in ECD sector is the focus of this study.

Research Objectives

The specific objectives of the paper are to:

- Examined the play-based learning activities present in ECD centres
- Establish teachers' role in implementation of play-based learning activities present in ECD centres
- Determine the effect of play based learning in promotion of early literacy skills among ECD children

THEORETICAL REVIEW

This section presents the review of theories underpinning the relationship between play-based learning method and promotion of early literacy skills by pre-school children in ECD centres.

Theories on play based learning

Theories have been undertaken to explain the relationship between play-based learning and promotion of early literacy skills. The theorists are: Jean Piaget, Maria Montessori, and Lev Vygotsky. Piagetian theory emphasised on the function of representational thought utilised in play (Roskos & Christie, 2011). Vygotsky explained that play produces mental tools which help cognition and function as a leading role that results to creation of zonal of proximal development (Rand, 2021). The three theories suggest that when children interact with the world around them, they are most probably expected to recall direct experience rather than sensational experience which are explained to them by others (Mielonen & Paterson, 2009). According to the child developmental theorists, children acquire knowledge through performance and not through stimulation. These theories are described below.

Montessori's theory of play

The paper is also guided by Maria Montessori theory of play. According to Mooney (2000), Montessori argued that a creative environmental setting needed to be set up so as to develop children literacy skills even without them knowing. This belief led to the establishment of Montessori schools (nurseries) across different parts of the world. The Montessori schools are constructed to suit the needs of children through offering them with required infrastructural and materials resources that they can use in learning. Mielonen and Paterson (2009) said that Montessori schools permit children to learn at their own pace since much of the classrooms resemble workshops that encouraged hands on learning. Mooney (2000) stated that children learn by doing and through repetition. Considering that plays are repetitive, Montessori believed that instructors need to create adequate time for children to play. Through Montessori principles, majority of ECD programmes across the world today have been founded and established. The resources materials provided enable learners to be engaged in play hence improved understanding of complex literacy concepts.

Piaget's theory

This theory was developed by Jean Piaget who contended that play permit children to construct knowledge (Piaget, 1985). When children play, they construct knowledge through accommodation and assimilation (Syomwene & Mwaka, 2018). Play is a means of information processing concerning the outside world and assimilating it in the individuals' scheme (schema) of understanding that has already been developed through previous experiences (Mooney, 2000). According to Piaget, play is a channel through which a child acquires knowledge concerning the environment. With respect to this paper, Piaget believed that children acquire knowledge through participation in play as it provides them with natural means of expressing ideas (Tsao, 2008). Most children learn through watching and imitating situations within their surrounding and Piaget perceived that learning through trial-and-error improved children's cognitive capacities (Mielonen & Paterson, 2009). These cognitive abilities are associated to children early literacy skills (reading and writing) which are developed through their participation in play-based learning activities.

Vygotsky's theory

The paper is also informed by Russian sociologist Lev Vygotsky (1978) social constructivism theory of knowledge acquisition. This theory maintains that play permit children to realise their cognitive potential level. According to Syomwene and Mwaka (2018), play promotes early literacy skills through their interactions with adults (older children and teachers) who are known as 'More Knowledgeable Others. Participation in play-based activities between children and MKO improves their acquisition of competency skills in schools. Vygotsky alleged that children developed literacy skills and acquired new ideas as they communicate to and listen to one another during play as they constantly use language (Mooney, 2000). Social interactions involving language that learners use during play assists them develop their literacy skills (Tsao, 2008). Vygotsky assumed

that children can scaffold for themselves through play.

Methodology

This paper is anchored on qualitative research paradigm that seeks to understand effectiveness of play-based learning on promotion of early literacy skills among ECD children. The data collected for this study is secondary in nature being collected from published works from government documents, past theses, books, journal articles and institution information from across various geographical setting. In selecting the secondary sources that were used in this paper, these terms were used; 'play', 'play-based learning', 'pre-school', and 'early literacy skills. The researcher used elimination approach to remove works that were considered to valid for this paper. After elimination, the researcher critically evaluated the validity of the literature studies use and the ones reported in this study were the ones found to be valid and useful in discussions on various topical areas of this paper.

Effects of Play on Promotion of Early Literacy Skills

This section presents the results of secondary analysis of empirical studies on the effect of play on the promotion of early literacy within ECD settings. The presentation of the findings of the literature review is undertaken based on the objectives of the paper.

Play-based learning activities present in ECD centres

The play-based learning activities that are frequently utilised in early childhood setting and promote the acquisition of early literacy skills consist of; constructive play, functional play, games with rules and pretend or dramatic play (Griswold, 2018). In functional play learning activity, children play with and manipulate objectives and environments using their senses and muscles (Syomwene & Mwaka, 2018). It involves the children squeezing, tossing or touching. Clark (2020) said that play using manipulative materials permit children to understand from their sensory motor experiences.

Other scholars refer to functional play as; sensory play, exploratory play or practice play (Saracho, 1991).

The second play-based learning activity is constructive play. According to Clark (2020), this is a type of play where children utilise their hands to assemble or create an object. In this case, children utilise objectives to develop a new thing. For instances, children may utilise blocks materials to construct a storied building. The third play-based learning activity is the pretend or dramatic play. This is the repetition of roles that children observe. It is also called symbolic play where children utilise one objective to stand or represent with another. Mielonen and Paterson (2009) found out that symbolic play promoted early literacy development through helping children's knowledge of how symbols and sounds work as they communicate in the play setting. The fourth play-based learning activity is the games with rules where children are expected to observe followed prescribed rules when they are playing together in attaining a common objective since these games have predetermined and foxed rules. It helps learners to control their behaviour in schools (Syomwene & Mwaka, 2018). Some of the common games associated with this activity is board game, tag, and hide and seek.

Teachers' role in implementation of play-based learning activities

teacher's role in promotion of play based learning is to develop the children's literacy skills learning using play, offer opportunities for quality interactions and cultivate flexible and spontaneous literacy behaviours to pupils (Saracho, 2004). The effective interactions with pupils will help them develop their communication skills. There are five literacy objectives that teachers need to consider when promoting literacy skills in ECD. The first one is to encourage symbolic processes by permitting pupils to develop meaning to objectives. The second stage is the teacher to aid in language growth when children are playing. Through their play, their language competencies will increase through interactions with other pupils. Thirdly,

teachers should design the capacity of problem solving in a meaningful situation. Children playing games that have rules or tackling an issue when playing, they need to learn how to operate through the dilemma on their own. Fourthly, teachers need to inspire persistence in literacy through motivating them to increase their self-esteem when learning a difficult concept or learning area. Lastly, teachers are expected promote joyful interactions by allowing pupils to select high interest level texts and games based on their preference (Mielonen & Paterson (2009). This would make sure learning becomes enjoyable hence would acquire the required competencies.

Effect of play-based learning in promotion of early literacy skills

Various studies have been undertaken to examine the contributions of teachers' use of play-based learning approaches on promotion of early literacy skills. The effectiveness is categorised into three areas of literacy skills: narrative competence and story comprehension, vocabulary and language development and numeracy. A study by Nicolopoulou et al. (2015) examined how storytelling plays and story acting play fostered children's learning of emergent literacy skills; social competence, narrative and oral language skills and emergent literacy skills. Results showed that the play acting and storytelling fostered emergent literacy skills among learners. McGinn (2017) examined the effects of a play-based ECD on the academic and social development of pre-kindergarten children. It was found out that there was positive relationship between free play in pre-school and future school success in literacy skills.

Action research by Farrell (2019) determined if usage of guided-play based learning strategies with kindergarten learners assisted students to acquire literacy skills. Results showed that learners made progress in acquiring letter sound recognition skills when play-based learning strategies were utilized. Pyle et al. (2018) investigated the enacted integration of literacy learning and play-based pedagogies through

undertaking interview with kindergarten teachers. Results showed differences in teachers' beliefs about the role-based learning on children acquisition of literacy skills. This difference was due to challenges that teachers experienced when implementing a play-based learning programme. Clark (2020) literature review synthesised research on how play-based learning and early-literacy effectiveness were connected. Clark found out that children's literacy skills were developed through play, especially when guided and directed by the teacher through play experiences on literacy.

In Kisumu Central Sub County, Ojuondo (2015) research sought to find out aspects of play that contributed towards the development of language skills. It was found out that that children who were exposed to various forms of play like manipulative, physical creative, and dramatic plays with play materials attained higher scores by acquiring listening, reading, writing and speaking, skills during interaction with teachers who played active roles to instruct and direct play-based learning methods than those who were not exposed to any form of play.

Muema et al. (2018) examined influence of forms of play on teaching of Mathematics especially in acquisition of numeracy skills by pre-school children. The study established that ECDE teachers were undecided on usage of various forms of play-based learning in enhancing the acquisition of numeracy skills in ECDE in Kenya. They established that forms of play used to assist children acquire numeracy skills in ECDE centers are below expectations in Machakos County. Kemunto et al. (2019) assessed the importance of play and its relationship to learning in ECDE. Results showed that teachers acknowledge that using teaching and learning materials in pre-school classroom environments enhances language skills through play-based learning. Koech et al. (2019) assessed play activities used by teachers in play in ECDE centres. They found out that there were different types of play activities (onlooker play, motor or physical play, solitary play, and social dramatic play) available in ECDE centres although not all were utilized by

teachers during instruction. Onyango et al. (2023) studied context-based innovation levers and conditions for implementing and scaling Learning through Play (LtP) techniques in Kajiado, Kiambu and Nairobi. Results showed that that most study participants were aware of existing LtP techniques. They understood that LtP techniques could be utilized to promote children's literacy skills. But the results pointed to a gap in the capacities of teachers to implement LtP techniques for all children especially those with disabilities.

CONCLUSIONS AND RECOMMENDATIONS

The paper has established that play is one of the integral parts of child growth and development as it contributes to their physical, cognitive, social, and emotional well-being. This study concentrated on how play-based learning influenced promotion of early literacy skills among ECD children through analysis of past studies conducted in the area. The paper has established that indeed use of play-based approaches positively promotes acquisition of early literacy skills by learners in ECD level. however, the paper has established that the implementation of play-based activities is very low in the ECD sector both in developed and developing countries including Kenya. Teachers' capacity to effectively implement play-based learning, inadequate time for play-based learning and lack of instructional materials for play-based learning were found to be the challenges influencing its use towards promotion of early literacy skills by learners in ECD. Based on this observation, the study suggests that teachers should be adequately trained on play-based methods in order to ensure they are properly implemented in schools. the ministry of education at national and county levels to support the implementation of play-based learning through regular supervision and assessments of its use in schools. the school management to ensure that appropriate resource materials to aid play-based learning are provided in schools.

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