



Play-based Pedagogies for Early Learners in the African Context: A Scoping Review

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Abstract

African governments have committed to implementing learning through play (LtP) in pre-primary education, through their policies, however, there are implementation challenges. We conducted a scoping review of publications on LtP in Africa since 2002 to evaluate LtP models that have been successfully used in Africa to inform the development of a suitable model for Kenya. We searched and retrieved literature from different databased. We focused on [1] What are the existing LtP approaches that have been or are being used in ECE in the African context? [2] To what extent were the models effective and what were the contextual factors and mechanisms that contributed to their success? [3] What challenges/barriers were experienced? [4] Which aspects of LtP models are adaptable to the Kenyan context? Altogether 3017 articles were retrieved, 160 progressed to full text screening of which 64 were eligible and were reviewed. Findings revealed various LtP models including those that utilized indigenous activities with significant benefits for learning and teaching. Teachers' knowledge and skills in play-based learning were critical yet often lacking. Limited integration of play in learning curriculum, misconceptions towards play, lack of play materials and space were common barriers. Play-based learning is feasible in the African context; its implementation can be strengthened through leveraging existing LtP approaches, teacher capacity building, curriculum integration, provision of resources and involvement of all stakeholders.

Keywords: Learning through play, Pedagogies, Early learners, Africa,

INTRODUCTION

Children instinctively use play to develop physical, social, emotional, and creative development skills (J. M. Zosh *et al.*, 2017). Approaches to learning through play (LtP) leverage this natural behavior by several playful practices to support children's learning at home, school, and community.(J. M. Zosh *et al.*, 2017) Effective play, which is joyful, meaningful, actively engaging, and socially iterative (Awopegba *et al.*, 2013; Mwaura & Marfo, 2011; J. M. Zosh *et al.*, 2017) enables building foundational skills children need to succeed in early primary grades and beyond. These skills range from content acquisition to "*learning-to-learn*" (J. M. Zosh *et al.*, 2017) and together with social, emotional and communication skills, form the basis for school readiness. Adults and peers are crucial facilitators and co-creators of play (H. Jensen *et al.*, 2019) and a safe environment is required for children to develop to their full capabilities (Mabagala & Mabagala, 2007).

In Africa, play has been a key tool children's early socialization and development through songs, riddles, and games (Taiwo Ogunyemi & Henning, 2020). While play as a tool for learning is reflected in policy commitments, pre-service and in-service teacher professional development does not always focus on building skills in play facilitation (UNICEF, 2018). Since skills development and mentorship are key to supporting teachers to implement, integrate and sustain LtP approaches in the classroom, addressing this gap could be transformative (Dowd & and Thomsen, 2021; UNICEF, 2018). There are a number of LtP approaches that have been documented in Africa (Dowd & and Thomsen, 2021).

However, limited data exist about how teachers are being trained and supported to facilitate LtP approaches effectively, and the role of parents and the general community. LtP approaches present an opportunity to challenge inequity in learning and in leveling the playing field for all children, including those from marginalized groups (Dowd & Thomsen, 2021; UNICEF, 2019).

Within a study aimed at strengthening the capacity for play-based learning in the sub-Saharan African context, we conducted a scoping review to understand the situation of LtP in sub-Saharan Africa. We define LtP as approaches or learning avenues that encourage children to enjoy learning through spontaneous, actively engaging, explorative, and sometimes adult-supported activities, providing them with opportunities to take initiative, focus their attention, nurture curiosity, and explore the environment, thus acquiring critical psychomotor, cognitive, and socio-emotional skills needed to learn and develop. These activities may take place at school, home, or other environment.

We sought to examine LtP initiatives in Africa to document best practices, how they worked, key mechanisms and stakeholders, and understand emerging impacts, gaps, and potential for integration into existing early learning models. We aimed to answer the following questions: [1] What are the existing LtP approaches that have been or are being used in ECE in the African context? [2] To what extent were the models effective and what were the key factors (contextual) and mechanisms that contributed to their success? [3] What challenges/barriers were experienced and how the lessons can be adapted to new models?

METHODOLOGY

The scoping review was guided by a methodological framework proposed by Arksey and O'Malle (Askey, H. O'Malley, 2009) and used a sequential approach starting with (i) defining the research question, and scope, (ii) identifying and generating relevant published articles from different databases, (iii) screening and selection of eligible studies, (iv) data extraction and (v) collating and summarizing the results.

Defining the Research Question, and Scope

We focused on literature on young children's play in at school or home, in Africa, and themes including available information on LtP in SSA (terms used, key study characteristics); LtP models used; how LtP models have worked—challenges, successes and gaps; key structures/systems/players – stakeholders, strategies, policies in LtP; key learnings on LtP for the KIX model.

Data Sources, Search Strategy and Search Terms

We searched for and retrieved published peer-reviewed and grey literature on the relevant studies from electronic databases: Web of Science, PubMed, Embase, AJOL, DOAJ, Science Direct, JSTOR, Open Grey and Scopus. Relevant grey literature was identified through searches of dissertations/theses and conference abstracts (EMBASE). Search terms were: "*learning through play*" OR "*play-based learning*" OR "*play in pre-school*" OR "*play in pre-primary*" OR "*child-centered learning*" AND "*sub-Saharan Africa*" OR "*Africa*" OR "*African*" OR "*Africa South of the Sahara*" OR "*East Africa*" OR "*West Africa*" OR "*Southern Africa*" OR "*Central Africa*" OR "*Northern Africa*". Retrieved articles were combined on an Excel sheet and duplicates removed, then screened by title, and abstract and as necessary by full-text based on eligibility criteria, and ineligible articles were dropped.



Inclusion and Exclusion Criteria

The PICO model was used; *Population* – teachers and caregivers in preschool/pre-primary school level; *Intervention* – learning through play or play-based learning; *Comparison* – the review considered all play-based learning, regardless of whether there is a comparison group or not; *Outcomes* – the review included studies that report the following outcomes: education achievement, developmental outcomes, and teachers'/caregivers' professional development. Further eligibility criteria ensured that the content of the included studies was relevant to the research question. An article was considered in the review if it (i) included participants from SSA; (ii) was published from 2000 onwards; (iii) included information on early learning for children up to 8 years; (iv) was published in English. Review articles were excluded since we were focusing on original research publications.

Data Extraction and Collation

Data including author and date of publication, country, study setting, study design, the population of focus, participant response rate, sample size, characteristic of the study population and outcome measure were extracted using a standard data extraction form and used to describe the literature. Each article was analyzed and described qualitatively focusing on the region of study, the terminology used to refer to play-based learning, key characteristics of LtP, the models, challenges, successes and gaps, key structures/systems/players – stakeholders, strategies, policies and key learnings – how it can be integrated into the KIX model/study. Findings from the different studies were combined and a discussion of the synthesized perspectives generated. Seven members of our team participated in the review.

Ethics Approvals and Informed Consent

The study received ethical approval from Amref Health Africa's Ethics and Scientific Review Committee ESRC, Kenya (Ref: ESRC P1160/2022) on the 22nd April 2022, and permission from the National Commission for Science, Technology and Innovation (NACOSTI). Voluntary informed consent was not necessary for the scoping review.

RESULTS

Description of the Articles

Altogether, 3,017 articles were retrieved; 160 progressed to full-text screening and 64 were eligible and reviewed. A significant number of articles were from South Africa, and others from Nigeria, Tanzania, Uganda, and Kenya. The majority of the studies used cross-sectional qualitative or ethnographic approaches to examine play and learning and varied in the participants included (teachers, learners, parents) and in research questions (perceptions, practices, feasibility, resources availability).

LtP Terminology/Definitions Used

Several terms were used. Play-based pedagogy was a popular term used to refer to play-based learning and was defined (by teachers) as 'children learning in a playful manner that enables them to engage in learning without realizing that they are actually learning' and perceived as a less stressful approach to learning for young children (Lunga *et al.*, 2022). Play was referred to as a game, and defined as "an activity with clearly defined goals towards which the players move while following agreed upon rules" (Nkopodi & Mosimege, 2009). Games included children's street play, word and board games, cards, dice, puzzles, and sports etc.

Play-based learning and play-based pedagogy were commonly used to refer to play as a model for harnessing the role of play in learning. However, in many curricula, play was regarded play as an activity separate from learning that should be undertaken during lunch time, breaks or as extra-curricular activities (Ogunyemi & Ragpot, 2016) revealing a misunderstanding about the role of play in the learning process itself (Wang, 2018).

The term “*playful learning*” refers to planned play activities or experiences where teachers try to have both play and learning in the same activity. This deliberate experience that aims to facilitate various areas of learning to achieve curriculum goals. Playful learning gives children an opportunity to learn and practice skills, attitudes and knowledge (Dzamesi & van Heerden, 2020). Finnegan uses the phrase “*child play*,” with examples such as Hide and Seek, Skipping, Jacks and string games as some of the games children play in African countries such as Mali (Finnegan, 2014) while Mayeza uses “*play*” and “*free play*.” (Mayeza, 2018)

Specifically, the term indigenous play-based pedagogy is used to refer play materials and resources that are indigenous and drawn from the local context (Dzamesi & van Heerden, 2020). While guided play is used and with a notion that development of cognitive skills cannot be attained passively, rather it requires active participation of teachers or parents in structuring the play to enable the learner to make sense of the world around them to develop their cognitive skills (Jemutai & Webb, 2019).

Play was conceptualized as an important option of active learning and creative problem-solving for children (Isaacs *et al.*, 2019) based on three categories: a) Free play: children have the choice for which play they will engage in and how.. b) Guided play where children are offered a challenge, and they then structure their own play to solve the problem presented. The teacher observes, supports and guides the children as needed; c) Instructional play where play environment is structured with specific activities and instructions, and aimed to help the children gain a predetermined skill or concept.

Gerde and colleagues (Gerde *et al.*, 2020) describe a high-quality early childhood education system in Rwanda (TEACH Rwanda) that focuses on three approaches to learning: teacher-child interactions, child-centered play, and use of locally available materials to deliver the Rwandan curriculum. Play-based learning is described as child-centered play whereby children are observed to engage in their routine activities such as taking snacks and the teacher transforms such activities into playful learning opportunities by engaging the children in counting their favorite snacks. Children contribute ideas for play, plan their roles in some play activities and often create learning opportunities during their regular play.

Jirata’s work (Jirata, 2019) describes play and learning patterns of an agro-pastoralist community in Ethiopia. The various forms of play that children participate in within their normal cultural contexts are creative play, oral play and dramatic play, all of which contribute in different ways to the children’s learning.

Lew-Levy and colleagues described play as work-themed pretense play, defined as imitation of work tasks that are typical of the children’s subsistence contexts.(Lew-Levy & Boyette, 2018) They view play as a platform for learning adaptive skills and knowledge to prepare children for tasks that are carried out by adults in their day-to-day life.

Play is described by Uduchukwu as “*active play*” and “*amusement*”. Whilst active play requires the involvement of playmates with the child leading the play experience, setting rules and boundaries, amusements are more structured and guided by an adult and require minimum effort from the activities of others. Both were posited to contribute to children’s personal and social adjustment and their communication and intellectual development (Uduchukwu, 2011).

According to Dzamesi and van Heerden, (Dzamesi & van Heerden, 2020) play is an integral part of early childhood education, tool for learning and a right of children which enhances their well-being and holistic development.

Models of LtP Used

Several models were reported. A model examined by Lunga *et al.*, (Lunga *et al.*, 2022) used participatory action learning and action research among teachers extending the notion that play is a spiral of learning, which if repeated enhances learning and development, and puts play at the center of early childhood curriculum. They qualitatively examined participants' ideas on how spiral play including free play and guided play can be used to facilitate learning and early development. Play-based learning in this study was perceived to be flexible and structured and a more learner friendly approach (enjoyable and less stressful).

Specific indigenous games have been used for teaching and learning particularly mathematical concepts leveraging on the similarities between games and mathematics e.g. following rules while applying problem solving skills to arrive at a solution in a group (Nkopodi & Mosimege, 2009). For instance, the Morabaraba board game used in South Africa (Nkopodi & Mosimege, 2009) to promote teaching and learning of mathematical concepts including geometric shapes, ratio and proportion, symmetry, logical reasoning and counting imbedded in the game, but at the same time help them overcome the fear to the subject. By encouraging learners to use mathematical language during the game, they were able to internalize and interact with the different terminologies and concepts and hence practical learning. For effective utilization, educators need to facilitate the games and support the learners in building new mathematical knowledge on the existing knowledge from the game. The authors recommend that explore more games to support teaching of mathematical concepts.

Van Vreden (Van Vreden, 2016) examined the use and integration of music (music education) to support the learning of children in Grade R in South Africa. She highlights that music provides concepts that are actively implemented to bring out the contents of other subjects. Her conceptual framework illustrates how music can foster child development, learning and teaching through the variety of skills involved including creativity, listening, body percussion, movement, dramatizing, singing, music, play and notation etc. She emphasizes as quoted *"music should be integrated into early learners' daily activities and successful integration is characterized by: defined activities; expectations and outcomes that are purposefully taught; learners who know their responsibilities, their working habits and their well-defined, focused and active roles in the integration process; clear correspondence between learner participation and teacher facilitation contents that adhere to the requirements of integrated as well as discipline-based teaching without the contents of one subject overshadowing those of another."*

Mayeza's 'child-centered' ethnographic approach aimed to give voices to 6-10-year-old South African primary school children in relation to their interests and experiences regarding play and found that children (boys) used football to construct and police gender transgression through bullying and violence (Mayeza, 2015). He recommends preventive measures including teacher visibility on the playground and caution against violence. He suggests that teachers have to be able to recognize the policing of gender through exclusionary violence and bullying in the playground, and see it as a problem and intervene, rather than treat the playground as an exclusive free-play space (compared to the classroom) that needs no supervision.

Using music to promote play-based learning, Van As and Excell conducted a 7-week interactive music program rooted in the widely accepted and appraised pedagogies (As *et al.*, 2011). The program was pivoted around the rich input of music concepts that were included in the program, and adopting a playful experiential approach that fostered a sequential learning process through hearing, seeing, and creating.

The program demonstrated a rich and unique characteristic of music as a media of learning i.e. where. theoretical input is accompanied with opportunities to translate the theory into practice and is delivered in an interactive way incorporating

playful learning strategies such as singing, and exploring the beat through dance movements, and manipulation of the instruments (van As & Excell, 2018).

In Strauss and Bipath's model, teachers used Bingo games and flashcards to teach sight words (Strauss & Bipath, 2020), importantly these utilized more of direct interaction between the teacher and the learner.

Dzamesi and Van Heerden's 2020 model (Dzamesi & van Heerden, 2020) entailed developing the capacity of kindergarten teachers to deliver the Ghanaian kindergarten curriculum through an indigenous play-based pedagogy. The model used participatory action research to identify the teacher's beliefs about and attitudes towards IPBP. This initial diagnosis phase enabled the researchers to understand the teachers' needs and informed the design of the development model. The teachers were then trained on use of indigenous forms of play (stories such as Anansi story and games known by Ghanaian kindergartens) and resources to deliver the six learning areas (language and literacy, environmental studies, numeracy, creative activities, music, dance and drama, and physical development) of the Ghanaian kindergarten curriculum. Teachers then implemented the training in classroom settings.

In a program evaluated by Wang, over 100,000 children across Ethiopia and Liberia were able to gain access to quality learning opportunities through the process of accelerated learning (Wang, 2018). This program had a big impact in Ethiopia, which has the second highest number of out-of-school children in Africa, and Liberia, which has the highest recorded rate of out-of-school primary-age children in the world. The program enhanced school entry and re-entry of those who had dropped out. Through this program, over 4,000 facilitators and teachers received professional development training in play-based methodologies, and over 12,000 teachers in the linked government schools benefited from complementary capacity building in the pedagogy which anchored on participatory, child-centric, activity-oriented, feedback-driven, and—most importantly— play-based pedagogy and supporting learning methods.

In Dzamesi and Van Heerden's work (Dzamesi & van Heerden, 2020) the key advantage of LnP is its ability to contextualize learning to a familiar environment/experience and which in itself motivates the child to engage and learn more (Dzamesi & van Heerden, 2020). Linking educational goals to play presupposes that children acquire knowledge in meaningful ways and develop favorable dispositions towards learning. Playful learning seeks to strike a balance between free play and directed/instructional play. Among the Limba tribe in Sierra Leone, lullabies are an important vehicle for shaping the child's growing sensibilities and for rocking a child to sleep. Among the Zulu in South Africa, nursery songs are used in both rural and urban areas to teach children pronunciation, particularly with the clicking sound (Finnegan, 2014).

Finnegan also cites riddles as a form of child play in many parts of Africa. The occasions for simple riddles are strikingly similar throughout Africa (Finnegan, 2014). These can be riddle-asking (evening story-telling) or game of riddling, usually involving special rules and is often highly competitive. Songs and games including nonsense songs, singing games, catch rhymes and similar creative forms are also a common characteristic of play among African children. Mayeza looks at gendered roles of young boys and girls during play by citing examples of gender distinctions across games (Mayeza, 2018).

Jemutai and Webb's model involved training of Grade R teachers in South Africa and its equivalent class in Kenya on how to facilitate play using 6 Brick Duplo Blocks (Jemutai & Webb, 2019). The model was based on a quasi-experimental study in which learners aged 5-7 years were guided on how to play with the Duplo blocks by the teachers for development of learners' visual-spatial perception skills. Learners in the intervention classes showed accelerated development of their visual-spatial abilities compared to learners in the comparison classes indicating that development of visual-spatial abilities is important for enhancing literacy and mathematical capabilities among the learners. 'Play



Well & Be Happy' capacity building program adapted and adopted the spectrum model (free, directed and instruction play) to inform the design of a capacity building program in 1000 Grade R practitioners through a 5-week training program in urban and rural settings in one of South Africa's most educationally challenged provinces, the Eastern Cape (Jennifer M. Zosh *et al.*, 2018).

The TEACH Rwanda model was reported as a high-quality teaching practice (Gerde *et al.*, 2020) providing child-centered LTP and hinged on three principles: teacher-child interactions, child-centered play and use of culturally relevant materials. Teachers in TEACH Rwanda pre-schools wear normal clothes and engage in interactive activities with learners. Learners are engaged in both free play and guided play and are allowed to decide the different roles they would play in a game. Teachers use concrete and open-ended materials from the natural environment to represent ideas and meet learning goals e.g. a doll to play doctor and label body parts, how the body works and how to care for the baby. TEACH Rwanda teaching and learning worked by continuous education and a professional development program including daily observations and reflections on their teaching practices, hands-on skill-based workshops where teachers were trained on new skills and self-reflections with a mentor to find effective ways of implementing their new skills.

A unique, low-literacy, low-cost 10 session program model of LTP provided parents with information on healthy growth and development of their young children (Tinajero *et al.*, 2016). The program teaches parents about different areas of development: sense of self, physical development, relationships, understanding and communication, illustrated on pictorial calendars given to parents to support what they learn in sessions led by a trained facilitator. It places emphasis on all areas of development and views them as equally important.

Perceptions and Attitudes towards Play and Learning

There were variable perceptions towards play and learning between parents, teachers and pupils. Teachers perceived play as an indispensable pedagogy in all aspects of child development (Lunga *et al.*, 2022). As children engage in different play activities, they achieve development in different dimensions and skills. It was also perceived to be a less stressful approach to learning as children through play actively engage in learning without feeling the hustle associated with the process.

Jirata's study highlighted that children enjoy learning through the use of riddles (Jirata, 2012). They gain autonomy as they are free from their controlling parents. Riddles enhance their self-esteem, develop their vocabularies, enhance their exploration skills and stimulate their thinking. Through riddles, children learn names of objects and places and how to associate words with things. Riddles are a perfect way to entertain the children as they learn and it breaks the boredom. Therefore, riddles have both social and educational values for children.

Aronstam & Braund's study on teachers' perceptions of the play pedagogies showed that some teachers were not knowledgeable about the play pedagogy making the need for reforms in the curriculum and planning for teacher training and national policy development for early years' learning imperative (Aronstam & Braund, 2016). They proposed the need to define and understand structured and formal play in the diverse contexts of South Africa, specifically by following, through the years and the teachers who utilize play as a pedagogical tool. There is a gap in recognizing the role of informal play in learning where a teacher's main aim of observing the learners at play is to ensure they are safe rather than identifying skills and interactions among the learners that could be developed. It was observed that teachers felt that many of the skills required for learning would be fostered during formal play and, so, the outcomes of informal play are not recognized. More than 50% of teachers claimed their main role during play was to ensure that no one gets hurt, and that no fighting takes place. 20% of teachers expressed a view that learning is a natural consequence of play. Further, it was clear that teachers generally did not connect play in Grade R and formal learning in Grade 1 as only 10%

indicated that play in Grade R prepares the child for formal learning in Grade 1. The lack of appreciation of the role of informal play for learning is partly due to lack of knowledge, or training and gaps in the ECD teachers' curriculum as they indicated that they received limited training on the pedagogy of play during their training. Play is characterized as constructive, challenging the perception that it is merely a physical activity rather than an undertaking that allows interactions with the early child developmental domains (Ogunyemi & Ragpot, 2016). This idea is premised on the fact that children should be given an opportunity to experiment and apply their faculties in different ways.

Aina and Bipath' highlights the role of infrastructure to ensure that early learning education settings provide the most value to children. Playgrounds and game equipment are cited as important investments in early learning environments that governments should be keen to provide in accordance with the S. African government policies (Aina & Bipath, 2022). The infrastructural requirements are meant to ensure that young learners effectively and optimally benefit from the physical facilities within the learning environment. In the same vein, Ogunyemi and Ragpot posit that ECE teachers need to conceptualize play with a supportive policy and procedural environment that meet the criteria for evaluation, relational and instrumental relevance (Ogunyemi & Ragpot, 2016).

Prior to the implementation of Dzamesi and Van Heerden's model (Dzamesi & van Heerden, 2020) teachers were aware that the kindergarten curriculum required learners to be taught through play but they did not implement the pedagogy as they lacked the necessary knowledge and skills. After the implementation of the model, there was a change in the teacher's teaching practice which was demonstrated through the use of indigenous stories and games to teach, increased creativity in delivering the curriculum, changes in seating arrangements, use of outdoor spaces, change in teacher-child interaction, use of hands-on teaching and child-centered teaching through role-plays and dramatization.

A study by Wang (Wang, 2018), showed that play-based pedagogy taught students to love learning and to carry that love into the next phase of their education. Play-based learning also ensures that children with a range of different learning styles not only grasp the minimum learning competencies, but also develop productive and mutually supportive relationships and a positive mindset, heart set, and experience set toward learning.

Jemutai and Web in their work report that teachers involved in the model (guided play using the 6 Brick Duplo Blocks) were able to implement the model and they enjoyed facilitating the learning activities (Jemutai & Webb, 2019). The teachers also reported that the visual-spatial abilities of the learners had improved and this observation is backed up by the quantitative findings of the study. Mwatha and colleagues argue that play stimulates and prolongs learning among children. As such provision of a variety of play materials is important for social and emotional development as the children learn using the different play materials (Mwatha *et al.*, 2017).

Gerde and colleagues (Gerde *et al.*, 2020) report that teachers in TEACH Rwanda Schools view themselves as professional educators who developed their own learning plans and themes to teach the Rwandan subject areas (as opposed to other schools that rely on a predetermined scripted curriculum). The teachers are also paid a fair and professional wage and hoped that the TEACH Rwanda teaching practice would be the future standard of practice (Gerde *et al.*, 2020).

In Nyarugenge District in Kigali Rwanda, Karenzi (Karenzi, 2016) surveyed pre-primary schools by focusing on whether they were equipped with facilities for play and how teachers promoted children's numeracy, literacy and life skills and creativity through play and games. Karenzi reported that to promote learning in numeracy, literacy and life skills, 1) most teachers allowed the learners to pursue their own interests by allowing them to choose positions they felt comfortable in and groups they wanted to belong to; 2) most teachers did not use learners ideas to enhance play activities because they deemed the learners to be young and lacking in terms of ideas of play; 3) most teachers used examples of play to help learners understand concepts in classrooms as they recognized the importance of play in teaching; 4) asked

questions to assist the learners to understand various play activities and 5) helped learners to engage in play involving numeracy (such as by counting, creating patterns, measuring things) literacy (by telling the learners stories, singing songs and imitating animal sounds) and life skills (through painting, coloring and engaging in handwork).

Jirata's ethnographic conducted a study on the care, play and learning patterns in early childhood among a native agro-pastoralist Guji community in Ethiopia where young children have no access to pre-school education and therefore depend on their cultural space for knowledge acquisition (Jirata, 2019). Early childhood play practices are described: creative play, dramatic play and oral play, and how they contribute to children's learning and development. In creative play, children create play objects from locally available materials e.g. building a barn for their cattle (made of fruits) using small sticks, make a telephone from soil and through creative play, children transform the mental image into a tangible object which develops their creativity, imagination and ability to make sense of their society. In dramatic pretend play, children imitate the social and cultural roles of men and women e.g. husband and wife, and learn gendered roles and values in their community and relationship among family members. Oral play in the form of riddling, storytelling and singing helps children develop their listening, interpretation and critical thinking skills as well as learning how to act out different roles.

Prioreschi and Wrottesley's qualitative study on mothers' perceptions and promotion of play in young children revealed four themes 1) Physical activity as an indicator for health; 2) Promoting play and development; 3) Gender bias in play; and 4) Screen time (Prioreschi *et al.*, 2020). There was a general view among mothers that if a child was active they were more likely to be healthy. Mothers indicated that play mostly naturally occurred during bath time and feeding time and also when they wanted to teach their child something new. They also allowed their children to engage in structured play. Safety was highlighted as the main barrier to play both within their environments and outside their environments. Other barriers included finances (to purchase a toy) and social and cultural norms (activities to take part in).

A study on imaginative play and reading development among Grade R learners in KwaZulu-Natal among Muslim, Christian and Hindu families, cast an interesting light on the different relations between reading and play among three Grade R children (Nehal & Rule, 2018). It was noticed that reading in the home anchors on mediated learning in which the parent acts as a mediator and imbues the object (reading material) with meaning by transforming textual signs into meaningful words which give pleasure, provoke interest, and in turn, stimulate meaning-making responses from the children in the form of play. The parent was actively involved in making components of that environment to suit the child as well as recognizing past and present experiences of the child and took the mediating role while playing, to direct the play process. This study also denotes parents' perception of play as natural and spontaneous (Nehal & Rule, 2018). The reading-play relation is the spontaneity of the children's impulse to explore and express meaning. Play is a natural and pleasurable way in which they can fuse cognitive, affective, kinetic and somatic aspects as agents of meaning-making. While their parents demonstrate intentionality by scaffolding the reading process, asking questions and explaining words and pictures, the children themselves initiate their play as a way of interpreting and expressing the story.

Early educators may hold several beliefs about playful practices, which vary in reflectiveness: perceptions where learning is more or less assumed to happen in play (in favor), or deemed an unlikely outcome of play (not in favor); others have reflective stances on learning in play, which recognizes a spectrum of playful practices and the importance of adopting a responsive educator role (Hanne Jensen *et al.*, 2021). Good play was perceived as activities that are active in nature and children's choice (enjoyable), orderly and requiring availability of toys and space and reveal children's preferences, characters, talents and often their future aspirations.

Lew-Levy and Boyette's paper (Lew-Levy & Boyette, 2018) provides evidence of the adaptive role that play in

childhood plays in developing skills and knowledge for children to prepare them for their adult life. The study, which used behavioral observation data, was carried out in two communities in Congo: the Aka community who are primarily a hunter-gatherer community and Ngandu who engage in farming as their main economic activity. Work-themed play that happens in childhood is seen as a venue to develop knowledge and skills of children to engage in the real work that adults carry out in their day to day activities by imitating them. From the study, three pieces of evidence regarding work-themed play emerge. 1) Age and participation in work-themed play where the older a child was the less likely to engage in work-themed play. Instead they were shown to be engaging in the “real” work as they had already acquired the necessary skills. 2) On complex versus simple tasks where children in the two traditional communities would spend more time in work-themed play when engaging in complex tasks than they would in simple tasks. However, the evidence that emerged from this did not prove their hypothesis since work featured significantly more than work-themed play activities. The study also showed that children engaged in more ethno-typical and gender-typical work-themed play activities in their childhood.

Contrary to the other studies reviewed, Korir and colleagues’ work in Kenya showed that teachers understand the various types of play to be used in ECE teaching and how it affects oral literacy development among the pre-schoolers and had the necessary skills to support play among children (Korir *et al.*, 2016).

Successes Reported in LtP

LtP enhanced literacy skills, while making the learning experience enjoyable (Strauss & Bipath, 2020). Likewise, using music increased motivation for learning and was successfully incorporated in learning (As *et al.*, 2011). A professional development program for teachers on LtP resulted in adopting a child-centered learning approach, which increased learners’ interest and participation during class. Through the use of indigenous play to deliver the curriculum, children’s emotional, social and physical skills improved (Dzamesi & van Heerden, 2020). By deconstructing the stigma and barriers to education, play provides a more engaging, inclusive learning environment for all children as demonstrated by Jemutai and Webb’s model in which visual perception abilities among the learners improved. Both teachers and learners enjoyed the activities (Jemutai & Webb, 2019).

The Play Well & Be Happy training program improved Grade R teacher’s behavior including asking more open-ended questions, were more calm in how they communicated with the children and listed and became warmer and responsive and; and used less coercive punishments (Isaacs *et al.*, 2019). Although practitioners reflected a basic understanding of LtP, there was a potential for improvements in this area as well as in the attitudes and awareness of the expected behaviors. Use of available ‘*equipment effectively*’ and ‘*setting up and managing play-stations in the classroom*’ improved significantly. The Play Well & Be Happy program therefore represents an important exploratory and systematic intervention for strengthening teacher’s capacity in LtP.

The TEACH Rwanda model has been successful in training and developing teachers to deliver the curriculum through a child-centered approach, without memorization, which has often been considered difficult to implement. This has happened without altering the quality of learning as the learners are enthused about their futures as they hold big dreams. The model is also open to parents and teachers from other schools for them to see how LtP is done (Gerde *et al.*, 2020).

Jirata shows that even in traditional contexts, children are able to acquire valuable developmental skills such as listening, imaginative and acting skills - this foundational learning is important in socializing children to their culture and prepares them for their later life (Jirata, 2019), but also highlights the value of indigenous and culturally relevant approaches to play to learning. A LtP program for parents increased their appreciation of attachment, specific areas of development, play and guiding behavior. Parents implemented the knowledge and strategies they learned from the

program for facilitating child development in their homes such as spending more time with children in activities related to play, child development stimulation and attachment formation, and using less coercive discipline. The program enhanced children's sense of self and relationships, independence and communication skills. The LtP program therefore had positive socio-emotional outcomes for children and parents (Tinajero *et al.*, 2016).

Challenges Reported in LtP

Studies have demonstrated the role of socio-economic determinants and availability of resources in ECD and learning for ECD centers and reported that lack of play materials hinders play and learning (Aina & Bipath, 2022). Outdoor play equipment can be used to engage young children in developmental and learning activities such as balancing, throwing, skipping etc. However, ECD centers located in the townships do not have sufficient play equipment especially for young children 0-3 years (Aina & Bipath, 2022). Play is disappearing from the classroom, and compared with Europe and America, the level of consensus on constructivist of early childhood curriculum and pedagogy is far from the reality in the developing countries of Africa. It is notable that the advocated policy reforms are not yet fully translated into concrete actions with respect to play in Nigeria and South Africa (Ogunyemi & Ragpot, 2016).

Dzamesi and Heerden (Dzamesi & van Heerden, 2020) noted that indigenous play-based pedagogy was regarded time-consuming to plan and implement, and could not completely replace the traditional learning and teacher-centered approach of delivering the kindergarten curriculum. Teachers did not fully explore the learning potential of the IPBP and focused only on achieving the objectives set for a particular lesson, and ignored learners' suggestions to explore certain topics further. On the other hand, Isaacs and colleagues (Isaacs *et al.*, 2019) report poor learner behavior or lack of cooperation; lack of space; too many children; insufficient resources; children wanting to play all the time; children not wanting to share or take turns or rotate play stations; some children not wanting to participate or preferring to play alone.

In the TEACH Rwanda program, supplementing teachers' wages by the program presents concerns about sustainability of the program at scale. Lew-Levy and Boyette 2018's study (Lew-Levy & Boyette, 2018) speaks to a different form of play that prepares children for adult work relevant to their cultural context. It therefore does not speak to developmental play or play for academic learning as would be anticipated for the period of early childhood development.

Play-based pedagogies in early childhood education in Africa are designed based on approaches from Western contexts, a situation that is problematic as issues such as access to resources and beliefs and practices are not addressed. Joint adult-child indigenous play, that allows teachers and learners interact in a familiar socio-cultural learning environment, with teachers embed emotional, social, cognitive and communicative opportunities in play should be prioritized (Dzamesi & van Heerden, 2020).

Gaps in LtP

Capacity gaps

Studies revealed capacity gaps particularly in ECD teachers' training and curriculum underlying the limited knowledge and skills, and implementation of play beyond just ensuring that children are safe during play (Aronstam & Braund, 2016). It is not enough to emphasize the role of indigenous play in learning and development in young children (Dzamesi & van Heerden, 2020) without supporting ECE educators on exploiting it to facilitate conceptual development at the kindergarten level in accordance with curricular requirements. For instance, the Ghanaian kindergarten curriculum emphasizes LtP but fails to show teachers how to employ the pedagogy to deliver curriculum content. In Kenya, the Ministry of Education syllabus places emphasis on the use of play and play materials by ECE teachers, however, a lot

of the learning and teaching takes place through rote methods.

Policy gaps

According to Korir and colleagues (Korir *et al.*, 2016) lack of teacher involvement in the formulation of policies to support development of oral skills through play, and the lack of effective supervision on implementation also hampers application of play pedagogy. Hence as recommended by Hadebe, in-service teachers should have continuous training on how to use play effectively including provision of relevant and creative play activities. (Hadebe, 2015).

Resources and underutilization of play

Mwatha's study (Mwatha *et al.*, 2017) alludes to the underutilization of play in Kenya due to limited play materials resulting in learning difficulties among pre-school children, increased cases of truancy, disinterest for school, aggressive behaviors, poor concentration in class, unwillingness to participate in challenging tasks, constant fatigue and agility. Jirata's 2019's work (Jirata, 2019) shows how children who are not able to access preschool education due to their cultural and societal system acquire knowledge and different developmental skills through play. However, academic perspectives of play such as how children may be learning literacy and numerical skills are not explored in the work.

Lack of learner involvement

With the exception of TEACH Rwanda, there was generally lack of involvement of learners in planning play activities (Karenzi, 2016) yet ideally, effective play requires that the learners are involved in the process and their thoughts considered in creation of play activities. Teachers believe that play activities that are geared towards learning are strictly for delivering curriculum requirements. Therefore, children's interests, preferences and choice in what play activities they may want to engage in are often ignored. From Jensen and colleague's work (Hanne Jensen *et al.*, 2021), it emerges that the Grade R teachers do not allow children to explore play aspects of their interest as they lack an understanding of how to accommodate self-directed play while still achieving curriculum requirements.

The Role of Systems in Ltp

The South African policy context places a lot of emphasis on the availability of play resources and infrastructure, safe play spaces, and parent awareness and capacity-development programs on the importance of play (Isaacs *et al.*, 2019). Specific stakeholder roles include: early years teachers need to apply play in oral skills acquisition among preschoolers; preschool administrators to provide of adequate facilities for play to enhance development of oral skills; curriculum developers to emphasize children's play and development of play materials within the curriculum; teacher training institutes to train teachers on the importance of child's play; teachers to obtain in service course to train them on different types of play that promote oral skill development; and community members and other stakeholders to donate of play materials needed (Korir *et al.*, 2016). The role of infrastructure in achieving optimum outcomes, through systems that support quality improvement, assurance and accountability (Chukwbikem, 2013), cannot be overlooked. This includes supporting access to clean drinking water, toilets, safety equipment and measures, a clean physical environment, sufficient classroom and outdoor space in ECD centers, but also support supervision for the educators to use the infrastructure to promote learning (Chopra, 2016).

DISCUSSION AND RECOMMENDATIONS

The current review that focused on models in the African context brings out interesting evidence on the utility, utilization and opportunities and areas that need enhancement in order to promote early learning through the play pedagogy. We discuss key lessons and recommendations for improvement in promoting play-based teaching within early childhood education policies and practice in Africa.

The role of Children, Teachers and Caregivers in Facilitating LtP

Based on Lunga *et al.*'s work (Lunga *et al.*, 2022), children, teachers and caregivers are key players in play based learning since children drive the play while teachers and caregivers provide the guidance and modulation to make play more aligned with the learning objectives. All community and national level stakeholders in the education ecosystem are key and should be involved in the development and sustainability of LtP and collectively dismantle systemic barriers to education in general (Wang, 2018).

Integration of Indigenous Knowledge in Strengthening LtP

From Jirata's work (Jirata, 2019), people's traditions and cultural spaces are seen to shape early childhood care and play practices from which children learn various developmental skills through play. It is therefore important to consider the cultural aspects of a community and incorporate particular traditional play practices that impart learning skills into any LtP model. Additionally, finding a link between what children learn in the community and what is taught in formal school is important in helping children associate what they learn in formal school and what they learn in the community. Further, choice of the game should consider whether it is possible to obtain or make the material; to use the games inside the classroom; the capability of the games to be played by both male and female learners; whether the games reveal a variety of embedded mathematical concepts. Local games should be explored for the concepts that can be taught through the use of these games.

Jirata's work on the use of riddles to encourage LtP (Jirata, 2012) presents useful considerations for LtP model development: 1) LtP should not only focus on school and school related activities, but also other settings where children gather such as home, playfields, work activities, churches or mosques and/or hospitals; 2) adults should be actively involved when developing and designing LtP models as they are key in facilitating learning; and 3) the use traditional/indigenous songs, tales and stories should be highly encouraged in the model. However, generational and structural shifts should be considered in designing games that suit the learners in question. Culturally transferable indigenous games such as the Morabaraba game can be used across cultures.

Professional Development Opportunities

In Jemutai and Webb's model, teachers played a central role in implementation of LtP model and the fact that cognitive abilities require guided play and not just free play (Jemutai & Webb, 2019). Therefore, teachers and parents should be skilled to transform random play into guided activities that can promote cognitive development. It is also important to build the capacity of teachers to explore ways in which indigenous games, songs and play can be incorporated in the teaching curriculum (Dzamesi & van Heerden, 2020). Teachers should be encouraged to be creative and come up with their own stories, make use of outdoor spaces and arrange classrooms in ways that accommodate play. While for some teachers, positive shifts in confidence and knowledge did not match with the observed practice of LtP (Isaacs *et al.*, 2019), other practitioners demonstrated the clearest difficulties with understanding the practice of applying different play strategies. Therefore, the need for longer teacher professional development intervention on LtP pedagogy cannot

be overemphasized.

Provision of Play Spaces and Opportunities

Play materials and spaces, play groups are prerequisite for play, and ultimately social-emotional development, oral skills enhancement, and learning. The ECD policy should incorporate play as a major component and curriculum implementation should provide for use of play (Korir *et al.*, 2016; Mwatha *et al.*, 2017).

Incorporation of Play into the Curriculum

The evidence suggests that play can effectively be incorporated into the curriculum, since blending ‘work’ and ‘play’ provides the avenues for children not only to explore their environment and build their personality but to also construct knowledge that is unique to them. Children’s interest should be central to curriculum planning while the subject/activity area should enrich and extend their learning for instance through integration of music in learning to provide a stimulating learning experience (van As & Excell, 2018).

Parent and Community Involvement

Parental engagement groups were reported to build a community of support for LtP approaches within their community through jointly addressing barriers e.g. social norms, economic constraints, and safety concerns (Wang, 2018). Jirata highlights important developmental learning aspects that children acquire from their cultural spaces in their everyday lives (Jirata, 2019).

Using Teachers as Champions

The model used to develop the skills of TEACH Rwanda teachers is one that can be learnt from. Seasoned teachers (champions) within TEACH Rwanda are used to train new educators and hence solve the challenge of limited capacity of teachers on using LtP. as was done by Gerde and colleagues (Gerde *et al.*, 2020). Parents and other community members are also encouraged to learn from TEACH Rwanda model of learning through play, and how this is extended to the home environment to promote learning beyond the classroom environment.

CONCLUSION

In conclusion, policy commitment, a well-aligned teacher curriculum, funding and dedication to continuous teacher training in best practices in ECD including play-based approaches are likely to enhance the systemic capacity of the ECE sector for effective ECD delivery, ultimately optimizing academic outcomes for learners. This review provides useful insights on play and learning in the African education systems especially that play is a feasible learning and teaching approach, the need to build capacity of teachers in its implementation through teacher curriculum, sensitization and providing resources. These findings inform the effective implementation of play-based learning and teaching in Africa to promote education outcomes and human capital that is crucial for the continent.

Limitations

The review was restricted to the African context, hence not necessarily generalizable to other contexts. Some of the studies reviewed included small samples (Jemutai & Webb, 2019) and randomization bias (Isaacs *et al.*, 2019) and which undermined their findings (Lew-Levy & Boyette, 2018).



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REFERENCES

- Aina, A. Y., & Bipath, K. (2022). Availability and use of infrastructural resources in promoting quality early childhood care and education in registered early childhood development centres. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v12i1.980>
- Aronstam, S., & Braund, M. (2016). Play in Grade R classrooms: Diverse teacher perceptions and practices. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v5i3.242>
- As, A. J. Van, Excell, L., Education, M., Division, S., Africa, S., Africa, S., As, A. Van, & As, V. (2011). Strengthening early childhood teacher education towards a play-based pedagogical approach through a music intervention programme. *Rnal of Childhood Education*.
- Askey, H. O'Malley, L. (2009). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1).
- Awopegba, P. O., Oduolowu, E., & Nsamenang, A. B. (2013). Indigenous early childhood care and education (IECCE) curriculum framework for Africa: a focus on context and contents. 127.
- Chopra, N. (2016). Quality early childhood education for disadvantaged children: an investigation in the MCD schools. *International Journal of Early Years Education*. <https://doi.org/10.1080/09669760.2015.1096236>
- Chukwbikem, P. E. I. (2013). Resources for early childhood education (E.C.E). *Mediterranean Journal of Social Sciences*. <https://doi.org/10.5901/mjss.2013.v4n8p161>
- Dowd, A., & and Thomsen, B. (2021). *Learning through Play: Increasing Impact, Reducing Inequality - White Paper | Teacher Task Force*.
- Dzamesi, F. E., & van Heerden, J. (2020). A professional development programme for implementing indigenous play-based pedagogy in kindergarten schools in ghana. *South African Journal of Education*. <https://doi.org/10.15700/saje.v40n3a1793>

- Finnegan, R. (2014). Child play is serious: children's games, verbal art and survival in Africa. *International Journal of Play*. <https://doi.org/10.1080/21594937.2014.976033>
- Gerde, H. K., Apol, L., Skibbe, L. E., & Bucyanna, C. M. (2020). Creating high-quality early childhood education in Rwanda: teacher dispositions, child-centred play, and culturally relevant materials. *Early Child Development and Care*. <https://doi.org/10.1080/03004430.2019.1578760>
- Hadebe, N. P. (2015). An exploration of foundation phase teachers' experiences in using play as a teaching strategy in Grade R.
- Isaacs, S., Roberts, N., Spencer-Smith, G., & Brink, S. (2019). Learning through play in grade r classrooms: Measuring practitioners' confidence, knowledge and practice. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v9i1.704>
- Jemutai, S., & Webb, P. (2019). Effects of a 6 brick duplo block guided play intervention on pre-literate learners' visual perception. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v9i1.634>
- Jensen, H., Pyle, A., Zosh, J. M., Ebrahim, H. B., Zaragoza Scherman, A., Reunamo, J., & Hamre, B. K. (2019). Play facilitation: the science behind the art of engaging young children (white paper).
- Jensen, Hanne, Kvalsvig, J. D., Taylor, M., Sibisi, S., Whitebread, D., & McLellan, R. (2021). What counts as learning in play? Uncovering patterns in perceptions of South African early educators. *International Journal of Early Years Education*. <https://doi.org/10.1080/09669760.2020.1814215>
- Jirata, T. J. (2012). Learning through play: An ethnographic study of children's riddling in ethiopia. *Africa*. <https://doi.org/10.1017/S0001972012000058>
- Jirata, T. J. (2019). The cultural spaces of young children: Care, play and learning patterns in early childhood among the Guji people of Ethiopia. *Global Studies of Childhood*. <https://doi.org/10.1177/2043610618817317>
- Karenzi, B. (2016). The Benefits of Play in Child's Creativity; Case of Nursery Schools of Nyarugenge District. Online Submission.
- Korir, C., Mutea, Z., & Ayodi, N. (2016). Effect Of Teachers Understanding Of Use Of Play On Pre School Children Oral Literacy Development In Bomet County- Kenya.
- Lew-Levy, S., & Boyette, A. H. (2018). Evidence for the Adaptive Learning Function of Work and Work-Themed Play among Aka Forager and Ngandu Farmer Children from the Congo Basin. *Human Nature*. <https://doi.org/10.1007/s12110-018-9314-6>
- Lunga, P., Esterhuizen, S., & Koen, M. (2022). Play-based pedagogy: An approach to advance young children's holistic development. *South African Journal of Childhood Education*, 12(1), 12. <https://doi.org/10.4102/SAJCE.V12I1.1133>
- Mabagala, S., & Mabagala, D. L. (2007). The Importance of Play during Childhood: The Lesson for Care Givers, Parents and Pre-schools in Tanzania. *Huria - Journal of the Open University of Tanzania*.
- Mayeza, E. (2015). Exclusionary violence and bullying in the playground: Football and gender "policing" at school. *Exclusionary Violence and Bullying in the Playground : Football and Gender "policing" at School*.
- Mayeza, E. (2018). 'It's not right for boys to play with dolls': young children constructing and policing gender during 'free play' in a South African classroom. *Discourse*. <https://doi.org/10.1080/01596306.2017.1290584>



- Mwatha, W. W., Muema, M. J., & Munyoki, M. J. (2017). Availability and Use of Play Materials, and their Influence on Social and Emotional Development of Pre-School Children in Kyangwithya Zone, Kitui County. *International Journal of Asian Social Science*. <https://doi.org/10.18488/journal.1/2017.7.4/1.4.278.283>
- Mwaura, P. A. M., & Marfo, K. (2011). Bridging Culture, Research, and Practice in Early Childhood Development: The Madrasa Resource Centers in East Africa. *Child Development Perspectives*, 5(2), 134–139. <https://doi.org/10.1111/j.1750-8606.2011.00168.x>
- Nehal, M., & Rule, P. N. (2018). Imaginative play and reading development among Grade R learners in KwaZulu-Natal: An ethnographic case study. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v8i1.518>
- Ngware, M. W., Hungi, N., Wekulo, P., Mutisya, M., Njagi, J., Muhia, N., Wambiya, E., Donfouet, H., Gathoni, G., & Mambe, S. (2018). Impact evaluation of the Tayari preschool program in Kenya - APHRC. APHRC.
- Nkopodi, N., & Mosimege, M. (2009). Incorporating the indigenous game of morabaraba in the learning of mathematics. *South African Journal of Education*. <https://doi.org/10.15700/saje.v29n3a273>
- Ogunyemi, F. T., & Ragpot, L. (2016). Work and play in early childhood education: Views from Nigeria and South Africa. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v5i3.344>
- Pioreschi, A., Wrottesley, S. V., Slemming, W., Cohen, E., & Norris, S. A. (2020). A qualitative study reporting maternal perceptions of the importance of play for healthy growth and development in the first two years of life. *BMC Pediatrics*. <https://doi.org/10.1186/s12887-020-02321-4>
- Strauss, A. M., & Bipath, K. (2020). Expanding vocabulary and sight word growth through guided play in a pre-primary classroom. In *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v10i1.738>
- Taiwo Ogunyemi, F., & Henning, E. (2020). From traditional learning to modern education: Understanding the value of play in Africa's childhood development. *South African Journal of Education*, 40. <https://doi.org/10.15700/saje.v40ns2a1768>
- Tinajero, A. R., Cohen, N. J., & Ametorwo, S. (2016). No data, no problem, no action: Parenting programs in low-income countries. Making the social-emotional outcomes more visible. *Child: Care, Health and Development*. <https://doi.org/10.1111/cch.12301>
- Uduchukwu, A. (2011). Enhancing Children's Development through Play: a Task that Must Be Achieved in Early Childhood Education. *African Research Review*. <https://doi.org/10.4314/afrr.v5i5.27>
- UNICEF. (2018). Learning through play: Strengthening learning through play in early childhood education programmes.
- UNICEF. (2019). Pathways to strengthen the pre-primary workforce in low- and middle-income countries | ECE Accelerator.
- van As, A. J., & Excell, L. (2018). Strengthening early childhood teacher education towards a play-based pedagogical approach. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v8i1.525>
- Van Vreden, M. (2016). Maestro for a moment: A conceptual framework for music integration in Grade R. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v6i1.373>
- VVOB, & and Forum for African Women Educationalists (FAWE). (2019). Gender-responsive Pedagogy in Early Childhood Education: A Toolkit for Teachers and School Leaders.



Wang, L. (2018). All work, all play: Harnessing play-based learning in Ethiopia and Liberia to create lifelong learners. *Childhood Education*. <https://doi.org/10.1080/00094056.2018.1516467>

Zosh, J. M., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Hirsh-Pasek, K., Solis, S. L., & Whitebread, D. (2017). The scientific case for learning through play.

Zosh, Jennifer M., Hirsh-Pasek, K., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Solis, S. L., & Whitebread, D. (2018). Accessing the inaccessible: Redefining play as a spectrum. *Frontiers in Psychology*, 9(AUG). <https://doi.org/10.3389/FPSYG.2018.01124>

