

# EXPLORING EARLY CHILDHOOD EDUCATION TEACHERS' PLAY-BASED LEARNING PEDAGOGICAL PRACTICES IN ZAMBIA

Collins Kaluba, Bibian Kalinde, Robinson Mambwe, Noah K. Sichula, and Naomi Njobvu

**Author Emails:** collins.kaluba@unza.zm/bibian.kalinde@unza.zm/robinson.mambwe@unza.zm/noah.sichula@unza.zm/naomi.njobvu@unza.zm

## Abstract

Although learning takes place throughout life, that which occurs during childhood will never be equaled (UNICEF, 2018). Play is a legitimate right in early childhood (Smith, 2013) and one of the most natural pathways to exploration and learning (Saskatchewan, 2018). However, although play is a legitimate right way of learning in Zambia (MOGE 2013), in practice its implementation varies from school to school (Lungu, 2023). This study explored the play-based pedagogies related to play-based learning of ECE teachers in Zambia and their preparedness to use play as a teaching technique. The study employed a concurrent or convergent parallel mixed-method design. A total of 30 ECE teachers across three districts of Zambia participated in this study. One-to-one interviews were used to collect qualitative data, while structured questionnaires were used to collect quantitative data for the study. Statistical Package for the Social Sciences (SPSS) version 25 was used to generate descriptive statistics while qualitative data was analysed using content analysis. The findings revealed that a considerable portion (83%) of ECE teachers perceived their training as sufficient for teaching using play-based pedagogies, but a notable minority expressed the need for more effective training and support in this regard. Further, the findings revealed that PBL was widely incorporated in ECE in Zambia. Among the commonly employed PBL pedagogical practices, teachers consistently incorporated elements such as games, role plays and dramatic play, storytelling, outdoor activities, individual work, pair work, group work, demonstrations, as well as rhymes and songs. However, the study noted a concern about the connectedness of play activity with the content of the day. It was observed that there was no connectedness between play activities and the content of the day. In addition, learning was not captivating enough as teachers were not so creative in using play as a vehicle to deliver curriculum content to the learners. These findings have crucial implications for the enhancement of ECE in Zambia. They underscore the value of

competency, focused Continuing Professional Development programmes, creative teaching approaches, diversification of play activities, and the intentional alignment of PBL with curriculum content.

**Keywords:** Curriculum, Early Child Education, incorporation, Play-based learning, pedagogical practices,

## 1.0 Introduction

In the field of Early Childhood Education (ECE), the search for effective teaching methods to provide a strong foundation for lifelong learning has been ongoing. Educators and researchers have explored various educational approaches to engage and empower young learners. Among these approaches, Play-Based Learning (PBL) has emerged as a promising and transformative method (Khalil *et al.*, 2022). Childhood is a unique period for learning and play, which is intrinsic to childhood, is not merely a pastime but a potent educational tool that transcends cultural and societal boundaries. When integrated into classrooms, PBL becomes both a source of learning and enjoyment, benefiting children's physical, social, cognitive, emotional, numeracy, literacy, and language development (Finn and McInnis, 2014). This approach has garnered support from experts like Irvine (2016) and Silva (2021), who highlight its positive impact on children's development and academic success.

Play-based learning in ECE is a pedagogical approach that emphasises the use of play as a central component of children's learning experiences (Moore *et al.*, 2014). It is considered a cornerstone of ECE provision (Edwards, 2017). PBL is based on the understanding that play is a natural and essential activity for young children, through which they explore, experiment, and make sense of the world around them (Bird and Edwards, 2014). It is recognised as the basis for pedagogy in early childhood education (Bird and Edwards, 2014). PBL can take various forms and can be integrated into different subject areas. For instance, in the context of environmental education, PBL can be used to integrate the acquisition of content knowledge with intentional teaching (Edwards and Cutter-Mackenzie, 2011). Similarly, in the field of visual arts, PBL can enhance opportunities for meaning-making, communication, and creativity (Lindsay, 2020).

The integration of digital media and popular culture into PBL has also been explored. Research has shown that early childhood educators face challenges in effectively integrating digital media and popular culture into play-based learning (Hu and Yelland, 2019). However, it is important to note that PBL should not be solely reliant on technology, as children need to engage in hands-on, sensory, and social play experiences (Hu and Yelland, 2019). Play-based learning is supported by various policies and frameworks, as well as reputable educational organisations. Recognising the importance of early learning experiences, influential educational organisations like the United Nations Educational, Scientific and Cultural

Organisation (UNESCO) have emphasised the need to incorporate PBL into the educational curriculum (UNICEF, 2018). This study delved into the multifaceted aspects of PBL, exploring its theoretical foundations, practical implementation strategies, and its potential to promote holistic development in young children. Through this exploration, we seek to identify strategies that enhance educational outcomes, enrich the learning experiences of children, and strengthen the vital connection between teachers, children, and the broader community.

### **1.1 Zambian Context: The Play Laden School Curriculum**

In Zambia, the intentional introduction of play-based learning has received commitments in terms of curriculum development, organisation structure reforms, and support from Non-Governmental Organisations (NGOs). In 1990, the Education for All (EFA) Conference called on governments to increase access to Early Childhood Education (ECE). The Zambian government responded by pledging its support for ECE in the 1996 policy document called “Educating Our Future.” However, ECE could not be mainstreamed in the primary sector for fear of worsening the quality of education in the sector, which was already poor (MOE, Focus on Learning, 1992). It was not until 2004 that the responsibility for providing ECE was shifted from the Ministry of Local Government and Housing to the Ministry of Education, thereby making ECE an integral part of Basic Education. The government of Zambia officially adopted ECE as part of the mainstream education system in 2011 (Kalinde, 2017). This move was a major milestone and led to the development of the ECE curriculum and the establishment of a Directorate responsible for ECE within the Ministry of Education. In 2014, the Ministry of General Education (MoGE) annexed ECE centres in government primary schools (MoGE, 2016). Before 2011, very little had been done to ensure uniformity and consistency in the implementation of the ECE curriculum in Zambia (Kalinde, 2017).

In 2013, the revised curriculum was introduced to standardise and improve ECE in Zambia. It outlined the delivery of ECE according to age groups, with early education offered to children aged 3 to 4 years and 5 to 6 years, corresponding to nursery and reception levels (Zambia Education Curriculum Framework, 2013). It emphasised the concept of “Learning through Play or Play-based learning.” To help teachers understand and effectively implement this concept, the Ministry of Education developed the Learning through Play Teachers’ Manual which serves as a guide, by providing additional information to teachers and enhancing their knowledge and skills in both theory and practice for teaching at the ECE and Grade one levels (Learning through Play Teacher’s Manual, 2021).

In Zambia, the integration of PBL into early ECE began with the introduction of an outcome-based curriculum in 2013. This represented a significant intentional shift in the educational approach, prioritising play as a fundamental tool for children’s learning and development by allocating 60 per cent of the teacher-pupil time to PBL and reserving 40 per cent for academic activities, recognising the crucial

role of play in nurturing well-rounded and academically prepared young learners (MOE, Zambia Education Curriculum Framework, 2013).

To ensure the effectiveness of play-based learning, the Curriculum Development Centre (CDC) outlined specific characteristics for such activities. These characteristics included collaboration, creativity, engagement, concreteness, connectivity, challenge, and a joyful atmosphere, as detailed in the Learning Through Play-Based Early Education Teacher's Manual (MoE, Learning through Play Teachers' Manual, 2021). Additionally, the Zambia Resource Book for Early Childhood Care Development and Education, published in 2004, highlights various play-based pedagogies that collectively support a holistic and child-centred learning environment for young learners in Zambia's ECE system.

In today's changing world, education for young children must adapt to new demands. PBL is crucial in ECE to better prepare children for primary school. To enhance school readiness and smooth transitions, it is vital to study how ECE teachers employ PBL practices. This understanding is essential for shaping policies aimed at improving the transition of ECE learners to primary schools. There are several NGOs in Zambia supporting the implementation of PBL. The following institutions, but not limited to, support the MOE in the promotion of PBL: Zambia Open Community Schools (ZOCS), Flemish Association for Development Cooperation and Technical (VVOB), and World Vision. ZOCS runs an initiative called the School Readiness Initiative, which is built on three pillars; school, community, and the child. The SRI uses the PBL initiative to support children in holistic development and transitioning from the community to the school.

Research has shown that early childhood educators struggle with integrating play, facing challenges such as the role of direct instruction, planning for less structured play, and uncertainty in implementing guided play (Pyle, 2018). In Zambia, research has shown that there is inconsistency in the implementation of PBL across various ECE centres. Some teachers restrict play activities to designated playtime slots indicated on the timetable (Lungu and Matafwali, 2020). This inconsistency can lead to a fragmented learning experience for children in ECE centres. It may limit the extent to which PBL contributes to holistic child development because its potential benefits are not fully harnessed when confined to specific timeframes. It also raises concerns about the effectiveness of PBL and whether it is being used to its full advantage in all ECE settings. Therefore, there is a clear imperative for further research in this field to enhance the implementation of PBL in ECE in Zambia by gaining a deeper understanding of the specific methods and strategies employed by ECE teachers and how they are prepared to use such methods. Addressing this research gap, the present study investigated the PBL pedagogical practices of ECE teachers in Zambia and their preparedness to use play as a teaching technique.

## Research Questions

1. Are early childhood education teachers prepared to use play-based learning in Zambia?
2. What pedagogical practices related to play-based learning do early childhood education teachers use?

## 2.0 Literature

### 2.1 Play-Based Learning in Early Childhood Education

Play is a fundamental aspect of human development, especially during the early years of a child's life. It has been examined, conceptualised, and defined through diverse ideological and theoretical perspectives. While there is no firm consensus on the definition of play; various descriptions have been proposed, such as play experiences, which are characterised as meaningful, joyful, actively engaging, symbolic, iterative, and socially interactive (UNICEF, 2018; Lungu and Matafwali, 2020). For instance, Fromberg (1992 p.43) defines play as “an activity that is symbolic, meaningful, active, pleasurable, voluntary, fun, and engaging.”

Parten (1932), as cited in the works of Lungu and Matafwali (2020), conducted an extensive study on play in preschool settings and identified six primary types of play: unoccupied play (unfocused activities such as pacing), solitary play (children playing independently), onlooker plays (children observing others without participating), parallel play (children playing alongside one another with limited interaction), associative play (children engaging with each other at various levels), and cooperative play (children collaborating in their play activities).

From a pedagogical perspective, play is recognised as an approach in which teachers acknowledge that children learn through exploration, creating opportunities for active engagement in the learning process (Lungu and Matafwali, 2020). In a contemporary context, Pyle and Daniels (2017) advocate for play-based learning that aligns with both the developmental and academic needs of learners. This approach recognises the vital role of play in fostering not only children's holistic development but also their academic growth.

Play-based learning has been acknowledged as an effective approach in ECE (Moore *et al.*, 2014). This effectiveness can be attributed to the recognition that play is an integral part of a child's daily life, providing them with opportunities to experiment and acquire new social, cognitive, and emotional skills (Lamrani *et al.*, 2019). Play-based learning has been linked to the development of social and emotional development (Parker and Thomsen, 2019), language development (Stagnitti *et al.*, 2016), and literacy and numeracy outcomes (Vogt *et al.*, 2018). Literature has shown that children can learn and develop through play, and that it exerts a positive influence on children's learning and overall development, offering them opportunities to demonstrate knowledge, acquire skills, grasp concepts, and shape their dispositions (Biddle *et al.*, 2013; Hennigar, 2013; Isenberg and Quisenberry, 2002).

## **2.2 ECE Teachers' play-based pedagogical practices**

Pedagogical practices associated with PBL are essential for creating an engaging and effective learning environment for young children. Previous studies have delved into ECE teachers' perspectives on the use of play-based learning. Findings from a study by Kekesi *et al.* (2019) indicate that ECE teachers held a positive perception regarding the efficacy of play as a teaching technique. Furthermore, their study revealed a notable correlation: kindergarten teachers' favourable perception significantly influenced their adoption of play as a teaching technique (Kekesi *et al.*, 2019).

The *Zambia Resource Book for Early Childhood Care Development and Education*, published in 2004, highlights various play-based pedagogies, including methods such as role play, drama, problem-solving, group work, field trips, storytelling, rhymes and songs, nature walks, simulations, and project work. These approaches collectively support a holistic and child-centered learning environment for young learners in Zambia's early childhood education system. Stella and Lungu (2020), explored play-based teaching and learning in ECE Centers in Zambia, focusing on teachers' perspectives. They found that teachers utilised a wide range of both conventional and indigenous play activities. Conventional play activities included sports like football and netball, using items such as hula-hoops and skipping ropes, building with blocks, solving puzzles, engaging in board games, creative arts like painting, beading, molding, storytelling, and various physical activities. Indigenous play activities involved traditional games played in the local Nyanja language. This study demonstrated the diverse and culturally relevant play activities that teachers employed to support play-based learning in ECE in Zambia.

## **2.3 Conception Framework - Pedagogical Content Knowledge.**

This study embraced Pedagogical Content Knowledge (PCK) as the foundational theoretical framework to investigate the pedagogical practices of Early Childhood Education (ECE) teachers and the intricate interactions among teachers, children, and the community within the context of education. PCK is particularly relevant to play-based learning pedagogical practices. It underscores the art of teaching by emphasising the essential role of teachers in effectively linking content to play, enabling meaningful and engaging learning experiences for young learners. It acknowledges the fusion of teachers' expertise in both subject matter content and teaching methodologies, and their ability to navigate and adapt these understandings to suit the specific needs and developmental stages of the child. The concept of Pedagogical Content Knowledge (PCK) is a framework that has been widely used in educational research to describe and analyse teacher knowledge (Park and Oliver, 2007).

PCK places particular emphasis on the teacher's understanding of the learner, the content being taught, and the effective pedagogical processes that facilitate holistic child development. This framework allows for a comprehensive examination of how

ECE teachers leverage their specialised knowledge and skills to foster a dynamic and enriching educational environment. By focusing on the interplay between pedagogical strategies, content expertise, and child development, the researchers aimed to uncover the nuances of effective teaching in early childhood settings. However, the implementation of play-based learning requires teachers to have a certain level of readiness and competence (Гупа *et al.*, 2022). A study conducted in Ukrainian primary schools revealed that many teachers showed insufficient readiness for implementing play-based and activity-based learning methods. It was further noted that this lack of readiness was attributed to factors such as negative attitudes toward play in education and the dominance of an authoritarian communication style with students (Гупа *et al.*, 2022). To develop their PCK, ECE teachers can benefit from mentorship and collaborative learning experiences (Nilsson and Nilsson, 2019). Mentor and student-teacher group conversations are effective in supporting the development of pedagogical knowledge, including PCK (Nilsson and Nilsson, 2019). These conversations provide opportunities for reflection, sharing of experiences, and co-construction of knowledge among teachers.

### **3.0 Methodology**

#### *3.1 Research Design*

The study employed a concurrent or convergent parallel mixed-method design to investigate play-based pedagogical practices among ECE teachers. This design involves collecting both qualitative and quantitative data simultaneously in a single research phase (Creswell, 2008). The use of mixed methods in this study was justified by the aim to gather diverse but complementary data. By employing both quantitative and qualitative approaches, the study aimed to achieve a comprehensive understanding, validate findings through corroboration, and mitigate the limitations inherent in each method when used in isolation. This approach aligns with the recommendation by Babbie (2013) to utilise multiple research methods to leverage their respective strengths. The adoption of the convergent parallel mixed-method design in this study facilitated triangulation, allowing for a more accurate and comprehensive exploration of play-based pedagogical practices from various angles and using different methodologies and techniques. This approach provided the opportunity to gain a broad and in-depth understanding of the nature of play-based pedagogical practices in ECE schools.

#### **3.2 Research Participants and Research Setting**

The study was conducted in three districts of Zambia, namely; Choma, Kabwe, and Kapiri Mposhi. The study targeted primary schools which had ECE centres in the urban and rural areas within the designated districts. The study sample comprised a total of 30 ECE teachers. Teachers were selected using a convenience sampling technique based on their easy access, availability, and willingness to participate in the study

### **3.3 Methods of Data Collection**

Self-administered structured questionnaires and semi-structured interviews were used to collect data on play-based assessment practices from the ECE teachers. Interviews and questionnaires were conducted side by side, with the same participants but overlapping in terms of timing. The use of these methods of data collection, in this research, offered valuable insights and multiple perspectives. This increased the depth and reliability of the research findings.

### **3.4 Methods of Data Analysis**

In line with the guidelines of mixed method research, data was analysed using quantitative and qualitative data analysis methods. Quantitative data was analysed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics, such as frequencies and percentages, were then computed for each item in the questionnaire. Qualitative data was analysed using content analysis. The interviews were recorded and subsequently transcribed for analysis. The transcripts were used as the datasets for analysis. The data was analysed qualitatively using content analysis and described in detail while maintaining the verbatim expressions provided by the participants through direct citations.

### **3.5 Validity Issues**

A pilot study was conducted to pre-test the data collection instruments. This pilot study involved schools from different districts that shared similar features with those in the targeted districts. Conducting a pilot study provided an opportunity to test and refine the data collection instruments. In addition, the study used triangulation of data collection methods to deal with issues of validity.

### **3.6 Limitations**

One weakness of this study was the use of convenient sampling and a relatively small sample size, which might limit the generalisability of the results to all ECE teachers in Zambia. The findings might not represent the broader population, because the sample was not selected using random sampling, and there could be differences in characteristics or experiences between participants and non-participants. However, it's important to emphasise that the study's primary goal was not generalisation but to comprehensively explore play-based pedagogical practices among ECE teachers. To address these limitations, the study employed a triangulation method for data collection, enhancing the credibility and robustness of the findings. Despite these acknowledged limitations, the researchers remained confident in the reliability and practical use of the study findings.

## **4.0 Findings**

### *4.1 Demographics*

This study involved 30 ECE teachers from three districts in Southern and Central Provinces. The distribution of these teachers across the districts was as follows: 43.3 per cent from Choma, 30.0 per cent from Kabwe, and 26.7 per cent from

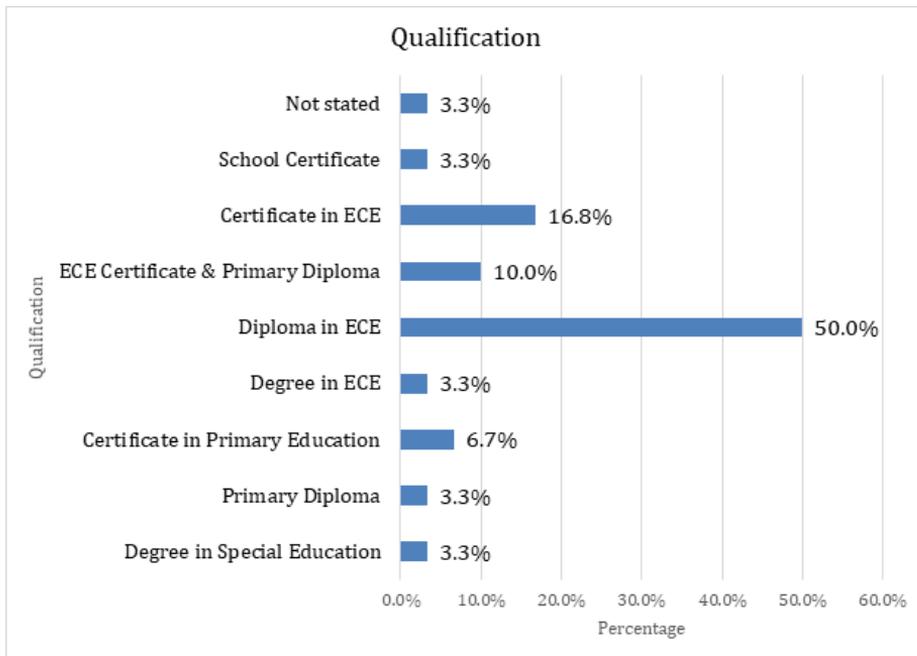
Kapiri Mposhi. The majority of the respondents were female, making up nearly 97 per cent of the sample, with only one male ECE teacher (3.3%). When considering age, most of the teachers fell into the age groups of 30 to 34 years (30.0%), 35 to 39 years (30.0%), and 40 to 44 years (26.7%). On average, these teachers had 5.7 years of experience in teaching ECE, indicating that they possessed a substantial amount of experience in teaching ECE learners.

**Table 1:** Frequency and percentages of the characteristics of the respondents

<b>Variable</b>	<b>Values</b>	<b>Frequency(n=30)</b>	<b>Percent (%)</b>
<b>District</b>	Choma	13	43.3
	Kabwe	9	30.0
	Kapiri Mposhi	8	26.7
<b>Sex</b>	Male	1	3.3
	Female	29	96.7
<b>Age</b>	25-29 years	2	6.7
	30-34 years	9	30.0
	35-39 years	9	30.0
	40-44 years	8	26.7
	45 years above	2	6.7
	<b>Total</b>	<b>30</b>	<b>100</b>

#### **4.2 Teachers' preparation for the use of play-based learning**

Figure 1 below presents a snapshot of the education qualifications of the respondents. The findings revealed that 50 per cent of the respondents held a Diploma in ECE, followed by those with a Certificate in ECE at 16.8 per cent. Furthermore, 10 per cent held both an ECE certificate and a Primary Diploma, while 6.7 per cent possessed a certificate in primary education.



*Figure 1. Education qualification of teachers*

The study findings revealed that the majority (74.6%) of the teachers were trained in private tertiary institutions while the rest were from public tertiary institutions. The majority (83%) of the respondents indicated that the training acquired from the university or college did prepare them to teach using play-based pedagogies. However, 17 per cent indicated that the training did not prepare them to teach using play-based pedagogies.

**Table 2.** Responses to items related to teacher training and preparation for PBL

Variable	Values	Frequen- cy(n=30)	Percent (%)
Type of tertiary institution where teachers were trained	Government/ Public	8	26.7
	Private	22	73.3
Whether training is effective in preparing Teachers for Play-Based pedagogies	Yes	25	83.3

Cross-tabulation was done to find out if there was any difference in being prepared to teach using PB pedagogies based on the type of tertiary institution the teachers had attended. The findings revealed that ECE teachers from Choma (91.7%) and Kapiri Mposhi Districts (87.5 %) were more likely to report being prepared to teach using PB pedagogies than those from Kabwe (66.7%), though this observed

difference was not statistically significant ( $p>0.05$ ). These findings are presented in Table 3 below

**Table 3.** Preparation to teach using PB pedagogies based on district.

		Whether training from the institution prepares teachers to teach using PB pedagogies in ECE			
			No	Yes	Total
District where the school is located	Choma	Count	1	11	12
		% within District	8.3%	91.7%	100.0%
	Kabwe	Count	3	6	9
		% within District	33.3%	66.7%	100.0%
	Kapiri	Count	1	7	8
		% within District	12.5%	87.5%	100.0%
Total		Count	5	24	29
		% within District	17.2%	82.8%	100.0%

### 4.3 Play-Based Pedagogical Practices of ECE Teachers

Considering that participants had some sort of preparation in play-based learning, the researchers proceeded to find out the extent of incorporating play-based learning and the pedagogical practices related to play-based learning in their teaching.

#### 4.3.1 Incorporation of Play-Based Learning Among ECE Teachers

Table 4 below presents findings on the extent of incorporating play-based learning in various domains of early childhood education. In cognitive development, the results indicate mixed findings in this domain. Creative games like computer-based activities and comparative games such as picture lotto received a low or neutral rating from a substantial proportion of respondents (46.3% and 30.8%, respectively). Sorting activities, stimulating games, construction activities, and observation activities, on the other hand, predominantly received high ratings. In the language and literacy development domain, initiating conversations and encouraging children to write, recite, name, and make sounds were highly rated, indicating a positive incorporation of PBL. Storytelling activities, writing, and encouraging children to communicate both verbally and non-verbally also received high ratings.

Furthermore, in physical development and well-being, encouraging outdoor activities and drawing and painting were rated high, with a strong emphasis on

physical activity (93.3% and 85.7%, respectively). For the social and emotional domain, safety role play activities and encouraging cooperation in group activities were equally highly rated at 80.0 per cent and 86.7 per cent, respectively. Encouraging self-introduction, labelling play materials, and allowing children to express their ideas and emotions also received a fair share of high ratings. In the spiritual and moral development domain, encouraging independent prayer and conversations about national identity received mixed ratings of high and neutral. These findings are presented in the table below:

Table 4. Extent of incorporation of PBL in ECE

S/N	Domain	Items	Low	Neutral	High
1	<b>Cognitive Development</b>	Creative games (e.g., computer)	46.2%	30.8%	23%
		Comparative games (i.e., picture lotto)	10.4%	31%	58.6%
		Sorting activities (separating rice from beans)	20%	6.7%	73.3%
		Stimulating games (i.e., birthdays and weddings)	21.4%	32.2%	46.4%
		Construction Activities (fixing a puzzle)	17.9%	35.70%	46.40%
		Observation activities (field trips: educational tours, nature walks)	34.5%	13.8%	51.7%
		Interrogative activities (questions and answers)	6.9%	6.9%	86.2%
		Involving, responsible, and awareness activity (be a part, of your duty, careful or safety)	3.6%	25%	71.4%
		Manipulative Activities (i.e., picking any object from the environment and making something out of it)	3.3%	16.7%	80%
2	<b>Language and Literacy Development</b>	Initiating a conversation (narrating a story)	3.6%	25%	71.4%
		Encourage the child to respond appropriately to given instructions or prompts	7.2%	10.7%	82.1%
		Encourage them to write, recite, name, and make sounds	3.4%	13.8%	82.8%
		Storytelling activities (folk tales, fairy tales, rhymes, riddles and proverbs)	3.3%	30%	66.7%
		Writing	7.2%	10.7%	82.1%
		Encourage them to communicate (verbal and non-verbal)	6.7%	13.3%	80%

3	<b>Physical Development and well-being</b>	Encourage the child to participate in outdoor activities (dancing, football, netball, skipping, etc)	0%	6.7%	93.3%
		Drawing and Painting	3.6%	10.7%	85.7%
4	<b>Social and Emotional</b>	Safety roleplay activities (stop signs danger signs)	10%	10%	80 %
		Encourage the child to cooperate with other children in group activities	0%	13.3%	86.7%
		Encourage the child to practice self-introduction	6.7%	20%	73.3%
		Help the child label their play materials with their name or symbols	13.30%	53.4%	33.3%
		Allow a child to present his or her ideas	14.2%	17.9%	67.9%
		Allow a child to express his or her own Emotions	3.3%	31%	65.7%
5	<b>Spiritual and Moral Development</b>	Encourage the child to pray on their own	16.7%	13.30%	70%
		Encourage the child to recite memory verses from religious books	26.7%	43.3%	30%
		Encourage the child in roleplay to develop positive social norms	3.3%	26.7%	70%
		Engage the child in the conversation about national identity	13.3%	36.7%	50%
	<b>Average</b>		<b>11.3%</b>	<b>21.7%</b>	<b>67%</b>

#### 4.3.2 PBL pedagogical practices in ECE classrooms

The findings of the study revealed that prevalent PBL pedagogical practices in ECE classrooms encompassed a diverse array of strategies. Among the commonly employed PBL pedagogical practices, teachers consistently incorporated elements such as games, role plays and dramatic play, storytelling, outdoor activities, individual work, pair work, group work, demonstrations, as well as rhymes and songs.

During the one-to-one interviews with ECE teachers, several noteworthy perspectives emerged from these dialogues, shedding light on the pedagogical choices of teachers:

In play-based methods we use group work or in pairs, where I give them a puzzle to assemble, they are playing making a puzzle or building blocks you give them to make whatever they want to make. They are playing meanwhile they are learning something; their minds are developing to say this is how I should build this. I sometimes allow them to have a play activity whereby they do role-playing, maybe a sketch, you tell them a story then you tell them to role-play it. Sometimes you even take them on outdoor activities where you monitor them closely like the motorcycle games. Maybe you can use skipping ropes, they are playing but they are learning to count numbers while having the skipping ropes they will be skipping outside and counting numbers. (ECE Teacher 3)

Yes, I do use play-based learning methods, especially during this hot season. It works well..., we also do some molding so that you achieve your objectives. There are many methods, we have drawings, water games we have skipping, maybe as we are counting, they will use a skipping rope, and sometimes they will use sacks when they are jumping. There are so many activities. (ECE Teacher 5)

The findings underscore the versatile and dynamic nature of PBL in ECE. Teachers employ a diverse range of activities to create an environment where children enjoy themselves and develop crucial skills through play. Integration of learning and play is evident in the teachers' narratives, as they skillfully incorporate educational activities into playful experiences. For example, they offer puzzles and building blocks, enabling children to learn while engaging in play, and fostering problem-solving abilities. Moreover, PBL often encompasses activities like role-playing and storytelling, enhancing children's creativity, social skills, and language development. The findings emphasise that play-based learning extends beyond the classroom into outdoor settings, where children participate in games and physical activities such as motorcycle games and skipping. These activities offer children opportunities to learn and refine various skills, including counting, coordination, and physical fitness. This approach not only makes learning enjoyable but also contributes to children's cognitive, physical, and social development.

It was also noted from the findings that ECE teachers employ a diverse range of activities to ensure that play-based learning remains engaging and effective. This variety includes drawing, water games, using skipping ropes, and even incorporating props like sacks for jumping. Additionally, teachers also adapt their teaching methods based on seasonal conditions, as indicated by the reference to the "hot season." This flexibility ensures that learning remains enjoyable and suitable for the specific circumstances at hand.

The findings continue to reveal some of the pedagogical practices related to play-based learning that ECE teachers reported to use. The following were some of the excerpts from the interviews.

Yes, I do, we use role-playing. The learners choose what they want to do or I choose what I want them to do. I choose a game or they come up with something they want to do. I normally do storytelling and ask questions from what you are reading or ask the learner to repeat what they heard in the story. Sometimes, in expressive art, they do songs, dancing, saying poems, and miming. (ECE Teacher 2)

Yes, we do, the first one is I can tell the children to role play, you put them in a group and ask them to prepare a ball. They are in a group preparing a ball and you will see how each child is participating in that activity. (ECE Teacher 4)

I use bottle tops....., they are learning colours they are also enjoying or singing, doing some other activities and there are also these traditional things which we use, as in from our local thing like '*Chiyenga*' and '*Isolo*', those things yes, we engage them. We also use clay as they are molding, doing role play using the same thing. (ECE Teacher 1)

The findings suggest that ECE teachers employ a multifaceted approach to foster engaging and interactive learning. They encourage role-playing, granting students the autonomy to choose or create their activities, thus, cultivating creativity and active involvement. This strategy also involves using questions related to stories, nurturing comprehension, and critical thinking. Expressive arts, including songs, dancing, poems, and miming, provide students with opportunities for self-expression and promote development in language, social interaction, and physical coordination. Group activities, like collaborative ball preparation, enhance teamwork and active participation. Furthermore, the incorporation of local materials, such as bottle tops, traditional games like '*Chiyenga*' and '*Isolo*,' and clay, enriches learning experiences by connecting students to their culture and heritage while imparting various concepts and skills. These diverse methods collectively create a dynamic and engaging learning environment in the ECE classroom. The approaches not only make learning enjoyable but also support the holistic development of learners in areas such as cognitive, social, and cultural awareness.

Other PBL pedagogical practices used by the teachers included manipulative play. This involved activities where learners were engaged in manipulating objects to achieve certain goals put forward by the teacher. This type of PBL is important because it promotes problem-solving, fine motor skills, and understanding of categories. During interviews, teachers expressed that they engaged their learners in manipulative play activities such as sorting. The following was the voice of one ECE teacher who stated that:

Yes, we use play-based learning methods. For example, we normally use leaves in Maths and tell the learners to sort the colours of the leaves. You tell them to put the red colour separately and the others just like that, so you are to put the leaves according to their separate colours. It is one of the methods in play-based learning. They can also use, for example, counting, you call it *pada* in the local language. It works by writing down the numbers, then when the child throws a card on that number then they count that number, if the child fails to count the number, you then tell that child that the number is this and that (Participant 6, ECE Teacher 6)

From the teachers' narratives, it is evident that there is an infusion of play in ECE lessons. ECE Teachers reported using a variety of practices to engage learners in play activities during lessons. It is very encouraging to note that ECE teachers infuse play in the lessons. However, it was found that there was little or no connection and creativity between play and the methods of teaching. It was very difficult to note the 60 per cent play and 40 per cent academic in practice (as specified by the ECE curriculum framework).

## **5.0 Discussion and Conclusion**

This study investigated the use of PBL pedagogical practices among ECE teachers in Zambia and how they were prepared for such methods. In terms of teacher preparation in PBL, the findings revealed that a considerable number of ECE teachers perceived their training as sufficient for teaching using play-based pedagogies, but a notable minority expresses the need for more effective training and support in this regard. This is also underscored by Mambwe (2019) and Mambwe et al. (2019) in their study on teacher preparedness for learner centred pedagogy. This highlights the significance of continuous professional development to ensure that all teachers are well-prepared to utilise PBL approaches effectively in the classroom by experiencing them themselves. Galbraith (2022), emphasises the importance of teachers experiencing learning through play to advocate for play and creativity in their classrooms themselves.

Overall, the study revealed that PBL is widely incorporated in ECE in Zambia. The study findings highlighted the diverse ways in which play-based learning is integrated into ECE, emphasising its significance across various developmental domains. The study identified that ECE teachers commonly utilised PBL practices such as role-playing, storytelling, pair work, group work, demonstration, outdoor activities, games, rhymes, and songs in their classes. These practices are aligned with the guidelines outlined in the *Zambia Resource Book for Early Childhood Care Development and Education of 2004*. Consequently, these findings affirm the alignment of ECE teaching practices with established educational guidelines and the value of PBL in promoting comprehensive child development.

These findings hold significant implications for ECE in Zambia. They underscore a consistent and high-quality educational approach, aligning PBL

practices with established guidelines. The diverse array of PBL methods reflects a dedication to nurturing comprehensive child development across cognitive, social, emotional, and physical domains. The widespread use of PBL practices, including role-playing, storytelling, and outdoor activities, ensures the active engagement and motivation of young learners. The integration of local materials and cultural elements emphasises cultural relevance, fostering a stronger connection between education and local heritage. In a nutshell, these findings indicate effective PBL strategies and suggest the continued and beneficial use of PBL in the future of ECE in Zambia. However, these findings seem not to agree with the findings of a study done among preschool teachers in Malaysia by Puteh and Ali (2013) who observed that many teachers did not integrate play into their activities to support teaching and learning language, even though they agreed that children love to play.

The study also noted that learners were actively engaged in various play activities across different domains, promoting cognitive development, literacy, numeracy, and social-emotional intelligence. These developments are crucial for preparing children for primary school. One positive aspect was that children had autonomy in choosing their playtime activities, empowering them to exercise their preferences. However, most play activities centred around counting and numeracy, suggesting a need to diversify and enrich play-based opportunities to encompass a wider range of cognitive and developmental skills in early learning. Research has previously demonstrated the significance of play in achieving developmental milestones in young children (Finn and McInnis, 2014; Irvine, 2016). Play is considered a vital element in preschool years, contributing to learning abilities, socio-psychological skills, and self-concept development (Silva, 2021).

The study noted a concern about the connectedness of play activity with the content of the day. In other words, it was observed that there was no connectedness between play activities and the content of the day. In addition, the learning was not captivating enough. This entailed that the teachers were not creative enough to use play as a vehicle to deliver curriculum content to the learners. Similarly, Lungu and Matafwali (2020) in their study conducted in ECE centres in Zambia found that most teachers used approaches that they were conversant with and in the process failed to effectively implement PBL in line with curriculum guidelines. The implications of these findings underscore the need for more purposeful integration of PBL in ECE in Zambia. The lack of connectedness between play activities and daily curriculum content points to an opportunity for teachers to better align play with educational objectives. The notion that learning is not captivating enough suggests the importance of fostering creativity among teachers to make play-based learning a more engaging and enjoyable experience for young learners. Additionally, the findings point to the importance of continuous professional development and support for teachers. These findings collectively advocate for more intentional and innovative use of play as a vehicle for delivering educational content, thereby ultimately enhancing the quality and effectiveness of ECE in Zambia.

## 6.0 Conclusion

This study shedded light on the utilisation of play-based pedagogical practices among ECE teachers in Zambia and their preparedness for employing such methods. The researchers found that a substantial portion of ECE teachers believed that their training adequately equipped them for PBL, although a notable minority perceive the need for more effective training and support. This highlights the importance of ongoing professional development, because teachers who have experienced PBL firsthand are better positioned to advocate for its use in their classrooms. The study also revealed that PBL is widely embraced in ECE in Zambia, with diverse and creative implementation of PBL practices that align with established guidelines.

However, it is crucial to acknowledge the challenges identified in the study, such as the disconnectedness between play activities and daily curriculum content, and the need for more captivating and creative approaches to leverage PBL effectively. These findings emphasise the necessity for more intentional and innovative use of play as a means of delivering educational content to enhance the quality and effectiveness of ECE in Zambia.

Furthermore, the study demonstrated that learners in ECE settings were actively engaged in various play activities across different domains, contributing to their cognitive development, literacy, numeracy, and socio-emotional intelligence. Nonetheless, there was a notable focus on numeracy activities, suggesting a need to diversify and enrich play-based opportunities to encompass a broader range of cognitive and developmental skills.

In a nutshell, these findings have crucial implications for the enhancement of ECE in Zambia. They underscore the value of competency-focused Continuing Professional Development (CPD) programmes, creative teaching approaches, diversification of play activities and the intentional alignment of PBL with curriculum content. These insights might inform policies and programmes tailored to the Zambian context, ultimately supporting and advancing ECE in the country, thus ensuring that ECE learners are well-prepared for primary school and their educational journey in general.

### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and publication of this article: This work was funded by the *International Development Research Centre IDRC (Grant Number: 109854)*.

### References

Barblett, L., Knaus, M., and Barratt-Pugh, C., 2016. The pushes and pulls of pedagogy in the early years: competing knowledge and the erosion of play-based learning. *Australasian Journal of Early Childhood*, 41(4), 36-43. <https://doi.org/10.1177/183693911604100405>

- Biddle, G., A. K., Garcia-Navarez, A. and Henderson, R. J. W., 2013. *Early Childhood Education: Becoming a Profession*. London: Sage Publications
- Bubikova-Moan, J., Hjetland, H., and Wollscheid, S., 2019. Ece teachers' views on play-based learning: a systematic review. *European Early Childhood Education Research Journal*, 27(6), 776-800. <https://doi.org/10.1080/1350293x.2019.1678717>
- Chen, S.; Gu, X., 2018. Toward active living: Comprehensive school physical activity program research and implications. *J. Phys. Act. Health*, 15, 161–168.
- Dewi, M., Setyosari, P., Kuswandi, D., and Ulfa, S., 2020. Analysis of kindergarten teachers on pedagogical content knowledge. *European Journal of Educational Research*, 9(4), 1701- 1721. <https://doi.org/10.12973/eu-jer.9.4.1701>
- Edwards, S., 2017. Play-based learning and intentional teaching: forever different? *Australasian Journal of Early Childhood*, 42(2), 4-11. <https://doi.org.10.23965/ajec.42.2.01>
- Fonsén, E., Szécsi, T., Kupila, P., Liinamaa, T., Halpern, C., and Repo, M., 2022. teachers' pedagogical leadership in early childhood education. *Educational Research*, 65(1), 1-23. <https://doi.org/10.1080/00131881.2022.2147855>
- Galbraith, J., 2022. A Prescription for Play”: developing early childhood preservice teachers' pedagogies of play. *Journal of Early Childhood Teacher Education*. [doi:https://doi.org/10.1080/10901027.2022.2054035](https://doi.org/10.1080/10901027.2022.2054035)
- Gura, T., Gura, O., Castanheira, P., and Roma, O., 2022. Teacher readiness to implement learning through play in Ukrainian primary schools: a preliminary study. *Sciencerise Pedagogical Education*, (5 (50)), 9-16. <https://doi.org/10.15587/2519-4984.2022.264230>
- Hennigar, M., 2013. *Teaching Young Children: An Introduction*, 5th edition. Boston: Pearson Pub.
- Irvine, S., 2016. Playful pedagogies: promoting active learning through play and imagination in the early years of school. doi: <https://doi.org/10.4324/9781315689913-3>
- Isenberg, J. P., and Quisenberry, N. (2002). Play: Essential for all children. *Childhood Education*, 79(1), 33-39.
- Jevtić, A., Vodopivec, J., Beleslin, T., and Šindić, A., 2022. Unmasking sustainability in early childhood education: teachers' voices from Bosnia and Herzegovina, Croatia, and Slovenia. *International Journal of Early Childhood*. <https://doi.org/10.1007/s13158-022-00321-2>
- Kalinde, B., 2017. The history of early childhood education in Zambia. Retrieved from [https://www.academia.edu/43290978/The\\_history\\_of\\_early\\_childhood\\_education\\_in\\_Zambia](https://www.academia.edu/43290978/The_history_of_early_childhood_education_in_Zambia)
- Kekesi, D. K., Donkor, S. K., Aburampah, W., and Torkonyo, M., 2019. Early Childhood Education Teachers' Perceptions on the Use of Play as a Teaching Technique in Afadjato South District of the Volta Region, Ghana. *Education Quarterly Reviews*, 2(3).

- Khalil, N.; Aljanazrah, A.; Hamed, G.; Murtagh, E., 2022. Exploring Teacher Educators' Perspectives of Play-Based Learning: A Mixed Method Approach. *Educ. Sci.* 2022, 12, 95. <https://doi.org/10.3390/educsci12020095>
- Lamrani, R., Abdelwahed, E. H., Chraïbi, S., Qassimi, S., and Hafidi, M., 2019. Early Childhood Education: How Play Can Be Used to Meet Children's Individual Needs. *Coastal Research Library*, 232–245. doi:10.1007/978-3-030-11884-6\_22
- Leggett, N. and Ford, M., 2013. A fine balance: understanding the roles educators and children play as intentional teachers and intentional learners within the early years learning framework. *Australasian Journal of Early Childhood*, 38(4), 42-50. <https://doi.org/10.1177/183693911303800406>
- Lindsay, G., 2020. Visual arts pedagogy in early childhood contexts: The baggage of self-efficacy beliefs, pedagogical knowledge, and limited pre-service training. *Australasian Journal of Early Childhood*, 183693912097906. doi:10.1177/1836939120979061
- Lungu, S., and Matafwali, B., 2020. Play Based Learning in Early Childhood Education (Ece) Centres in Zambia: A Teacher Perspective. *European Journal of Education Studies*, 7(20), 356-369. Retrieved from [www.oapub.org/edu](http://www.oapub.org/edu)
- Mambwe, R. (2019). Social Studies Student Teachers' Views on the implementation of Learner-Centred Approach in Zambian Primary Schools. *International Journal of Research and Innovation in Social Science (IJRISS)*, 3 (3), 101-109.
- Mambwe, R., Chishimba, P. C., & Manchishi, C. P. (2019). Student Teacher Preparation and Self-Efficacy Beliefs about Inductive Teaching Learning Methods in Primary Colleges of Education, Zambia. *International Journal of Education and Research*, 7(2), 179-196. <https://www.ijern.com/February-2019>.
- Matheus Da Silva, S., 2021. Pedagogical Science Pedagogical Practices in Childhood Education: Playing Activities Contributing to Children's Development. Retrieved from <https://api.semanticscholar.org/CorpusID:249548674>
- Ministry of Education, Science, Vocational Training and Early Education., 2013. Early Childhood Education Syllabus. Lusaka: Curriculum Development Centre.
- Ministry of General Education., 2016. Educational Statistical Bulletin 2016, Ministry of General Education Lusaka: General Education.
- Moore, D., Edwards, S., Cutter-Mackenzie, A., and Boyd, W., 2014. Play-based learning in early childhood education., 9-24. [https://doi.org/10.1007/978-3-319-03740-0\\_2](https://doi.org/10.1007/978-3-319-03740-0_2)
- Ntshangase, N. and Venketsamy, R., 2022. Practitioners' perceptions of play-based pedagogy on the holistic development of young children. *Profesi Pendidikan Dasar*, 9(2), 148-162. <https://doi.org/10.23917/ppd.v9i2.18477>
- Nilsson, M. and Nilsson, P., 2019. From pedagogical knowledge to pedagogical content knowledge: development in mentor and student-teacher group conversations. *International Journal of Learning Teaching and Educational Research*, 18(10), 233-247. <https://doi.org/10.26803/ijlter.18.10.15>

- Ofori, M., Osman, S., Idun, G., Ofori, E., and Ayerteye, E., 2022. An appraisal of social studies teachers' perceptions of teachers' pedagogical content knowledge. *Universal Journal of Social Sciences and Humanities*, 2(2), 106-118. <https://doi.org.10.31586/ujssh.2022.356>
- Parker, R., and Thomsen, B. S., 2019. Learning through play at school: A study of playful integrated pedagogies that foster children's holistic skills development in the primary school classroom. Billund: LEGO Foundation.
- Puteh, S. N., and Ali, A., 2013. Preschool Teachers' Perceptions Towards the Use of Play-Based Approach in Language and Literacy Development for Preschool. *Malaysian Journal of Learning and Instruction*, 10, 79-98. Retrieved October 17, 2023, from <https://files.eric.ed.gov/fulltext/EJ1137222.pdf>
- Pyle, A. and DeLuca, C., 2016. Assessment in play-based kindergarten classrooms: an empirical study of teacher perspectives and practices. *The Journal of Educational Research*, 110(5), 457-466. <https://doi.org/10.1080/00220671.2015.1118005>
- Pyle, A., DeLuca, C., and Danniels, E., 2017. A scoping review of research on play-based pedagogies in kindergarten education. *Review of Education*, 5(3), 311-351. <https://doi.org.10.1002/rev3.3097>
- Pyle, A. and Danniels E., 2017. A continuum of play-based learning: The role of the teacher in play-based pedagogy and the fear of hijacking play. *Early Education and Development*. 2017;28(3):274-289.
- Pyle, A., DeLuca, C., Danniels, E., and Wickstrom, H., 2020. A model for assessment in play-based kindergarten education. *American Educational Research Journal*, 57(6), 2251-2292. <https://doi.org.10.3102/0002831220908800>
- Samuelsson, I. and Carlsson, M., 2008. The playing learning child: towards a pedagogy of early childhood. *Scandinavian Journal of Educational Research*, 52(6), 623-641. <https://doi.org.10.1080/00313830802497265>
- Stagnitti, K., Bailey, A., Hudspeth Stevenson, E., Reynolds, E., and Kidd, E., 2016. An investigation into the effect of play-based instruction on the development of play skills and oral language. *Journal of Early Childhood Research*, 14(4), 389-406. <https://doi.org/10.1177/1476718X15579741>
- UNICEF., 2018. Learning through play: Strengthening learning through play in early childhood education programs. New York: UNICEF
- Vogt, F., Hauser, B., Stebler, R., Rechsteiner, K., and Urech, C., 2018. Learning through play—pedagogy and learning outcomes in early childhood mathematics. *European Early Childhood Education Research Journal*, 26(4), 589-603. <https://doi.org.10.1080/1350293X.2018.1487160>
- Wood, E., and Hedges, H., 2016. Curriculum in early childhood education: critical questions about content, coherence, and control. *The Curriculum Journal*, 27(3), 387-405. <https://doi.org.10.1080/09585176.2015.1129981>.