



## Regular Article

# Play-based learning: A pedagogical approach for social skills development in ECE learners in Zambia

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## ARTICLE INFO

## Keywords:

Play-based approach  
Social skills  
Resilience  
Self-esteem  
Self-confidence

## ABSTRACT

The link between pedagogical approaches and skills development in Early Childhood Education (ECE) has been a topic of interest in the recent past. Research has shown that early childhood Indigenous education fosters child development as children learn from adults who are experienced in a local game. The study was based on indigenous knowledge systems (IKS), Piaget's theory of play and Vygotsky's sociocultural theory as theoretical underpinnings. This study aimed to examine the effectiveness of play-based learning as a pedagogical approach for enhancing skills development in ECE learners in Zambia. The study involved ten ECE teachers from four purposively selected primary schools in the Chibombo District of Zambia. The study was qualitative and used a participatory action research (PAR) design through an interpretivist paradigm. Interviews and lesson observations were conducted to ascertain the use of a play-based learning approach in lessons taught by ECE teachers. The study found that traditional games, when used in play-based learning, enhance the acquisition of social skills such as resilience, self-esteem, self-confidence, cooperation, and children's agency. Traditional games through play-based learning were significant in teaching and learning of pre-primary school learners as they led to holistic child development. The study concludes that play-based learning using traditional games can support the development of social skills such as cooperation, teamwork, resilience, self-esteem, self-confidence, appreciation of culture, respect for elders and acquisition of values, and morals and customs in learners. Studies on play-based learning approaches that support the acquisition of social skills in preschool children in Zambia are very limited. This study addresses this gap. The article recommends that Indigenous games be included in the Early Childhood Education curriculum and encourage play-based learning through policy financing for culturally appropriate education, teacher preparation, and community involvement.

## 1. Introduction

The relationship that exists between pedagogical approaches and skills development in preschool learners has been a topic of interest in recent Early Childhood Education (ECE) debates. [Bleses et al. \(2021\)](#) suggest that the possibility of any achievement in preschool learners acquiring needed skills is dependent on providing quality ECE that promotes social-emotional and cognitive skills and other developmental domains. This achievement is often possible when teaching and learning takes place in a natural environment of the learners using teaching approaches that are local and familiar to all ([Madondo & Tsikira, 2021](#); [Muir, Howard & Kevin, 2024](#)). [Bleses et al. \(2024\)](#) argue that approaches that are local and familiar to learners and teachers in a natural setting differ from one place to another. In Scandinavia, for example, local

teaching approaches might differ from those found in African societies such as Zambia ([Bleses et al., 2024](#); [Ejuu, 2019](#); [Muir et al., 2024](#); [Munsaka & Kalinde, 2017](#); [Nakawa, 2020](#)). This is so due to the cultural and social background of the people living in a specific community ([Bleses et al., 2021](#); [Muir et al., 2024](#); [Munsaka & Kalinde, 2017](#)). [Bleses et al. \(2021\)](#) show that family's socio-economic status and socio-cultural background are some of the factors that contribute significantly to "disparities among children in early skill development" (p. 12). Studies conducted in various parts of Africa have shown how early childhood indigenous education fosters child development as children learn from adults who are experienced in local games. Scholars argue that benefits can be derived if the two education systems, Eurocentric and Indigenous Knowledge Systems (IKS), are properly harmonised by tapping the benefits of each system and including them in the school curriculum

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(Madondo & Tsikira, 2021; Moloi et al., 2021). It is thus vital to consider Madondo and Tsikira's (2022) view on indigenous games by demonstrating the richness of traditional games for children using play-based learning as an instructional tool for promoting holistic child development in preschool learners. Tachie and Galawe (2021) equally suggested that incorporating games in teaching and learning mathematical word problems significantly improves learners' creativity and imagination needed to solve classroom and life challenges. While these studies highlight the importance of play-based learning in early childhood education, little is known about how traditional games in Zambia could contribute to young children's overall development. This study closes these gaps by examining how Indigenous Knowledge Systems might be integrated into a modern educational environment, offering preschoolers a pedagogical approach that is culturally relevant, economically feasible, and developmentally appropriate. The study's findings will be very helpful to teachers and lawmakers who want to create an early childhood curriculum that is both inclusive and successful by combining conventional and modern teaching approaches. Therefore, this solicits for the use of local or indigenous methods in teaching that can be affordable to all and useful even to parents in homes as a continuation of the lessons taught in school. This study advocates for the use of indigenous games in promoting learning in early childhood learners.

The study's objective is to explore the role of Indigenous games in supporting the cognitive, social, emotional, and physical development of pre-school children in Zambia. The study aimed to examine the effectiveness of play-based learning as a pedagogical approach for enhancing skills development in early childhood education (ECE) learners in Zambia. The research question that guided the study are: How does play-based learning through Indigenous games contribute to the holistic development of preschool children in Zambia? This article addresses in detail the Literature review, theoretical framework, research design, methods and strategies of inquiry that were employed, data analysis, ethical issues, limitation of the study and conclusion and recommendation of the study.

## 2. Literature review

Traditional games are said to promote teaching and learning of various skills in children from an early age. Studies have shown that traditional games such as nsolo, pada and chiyenga or chiyato promote socialisation, cooperation, self-esteem, self-confidence, problem-solving, critical thinking and precision in decision-making leading to child development (Ejuu, 2019; Ng'asike & Swadener, 2019). This characterisation of traditional games' role in enhancing learners' social skills development attracts serious debates from scholars globally. It is also of interest to this study as it endeavours to show evidence of results that can be achieved when teaching and learning in preschool learners uses this pedagogical approach. Although some scholars argue that certain aspects in the preschool curriculum cannot be taught using play-based methods, this aligns itself to scholarly evidence that promotes the use of traditional games in teaching preschool learners thereby enhancing the acquisition of social skills that are necessary for holistic development in learners.

In Zambia for example, Tembo et al. (2018) argue that traditional games and play-based activities in schools equipped the learners with athletic, rhythmic and manipulative knowledge, and social, hygienic and critical thinking skills in primary school children. Through the identified indigenous games, learners learnt from each other the various social skills of respect, emotional control, accepting defeat and self-control in school and community through the activities the teacher exposed them to. In addition, Matafwali and Mofu (2023) noted that the use of play-based learning in outdoor activities through indigenous games can serve as a resource capital for enhancing the acquisition of various skills such as social-emotional, cognitive, physical and literacy skills and improving the teaching/learning practice in an early

childhood education setting. The acquisition of social skills and other skills, such as cognitive, physical, numeracy and emergent literacy skills, remain vital in the development trajectory of preschool learners. Studies by Matafwali and Mofu (2023) and Tembo et al. (2018) are of great interest to this study as they help this paper to appreciate other scholarly findings in order to build on the lessons learnt and chart the way forward for building social skills in preschool learners in the study location. This study, therefore, extrapolates that teachers can effectively implement play-based learning when the reservoir of developmentally appropriate Indigenous games is easily accessible to them and is well-known with regard to application and expected learning outcomes for each game used in teaching and learning.

Other scholars like Moloi et al. (2021) and Nakawa (2020) noted that children in South Africa and Zambia, respectively, were able to acquire cognitive and social skills when local games were used in teaching and learning. However, Nakawa (2020) identified impeding factors such as lack of knowledge and skills in teachers on appropriate use of traditional games to teach specific aspects in preschool subjects. The lack of skills and knowledge by teachers in using play-based teaching methods through traditional games remains a serious challenge even in the current study. In order to deal with this limitation, teachers are encouraged to learn from one another through continuous professional development (CPDs) and allow peer-to-peer learning among preschool learners. In support of this supposition, Tembo et al. (2018) stated that teachers should ensure that learners learn from each other the various social skills of respect, emotional control, accepting defeat and self-control in school and community through the activities the teacher exposed them to. In addition, Kejo (2017) established that traditional games when used by teachers in preschools led to the acquisition of skills that are useful for the community such as critical thinking and blending in society.

To demonstrate that social and emotional skills were embedded into the traditional games that teachers should use, Ejuu (2019) suggested that traditional games are important for enhancing the acquisition of cultural values and norms in society. As such, play-based learning and teaching could best be achieved if teachers used traditional games that were familiar to the learners due to the cultural value that each game has. Bleses et al. (2024) also found that family-centred activities, when used in isolation without teachers using approaches that support learning, had low outcomes on child development. This proposes a serious need for school-based and family-based programmes to be integrated with culture as well as games that teachers would use to teach specific skills to learners. For this reason, Matafwali and Mofu (2023) argue for the use of traditional games that help build creativity in learners and help learners promote teamwork as children work in groups. Such games would ensure that skills development takes place in learners from a tender age. Despite these studies being available, there was a need for this study to investigate how indigenous games can be used as pedagogical approaches in play-based learning in preschools, an aspect that has remained under-searched and undervalued in Zambian ECE provision, especially in rural areas where the use of Eurocentric games is expensive, unavailable and unfamiliar to the learners.

## 3. Theoretical framework

The theoretical underpinning of this study was anchored on Indigenous Knowledge Systems (IKS), Jean Piaget's theory of play and Lev Vygotsky's socio-cultural theory provided the theoretical frameworks that guided and gave meaning to this research. The three theories were used as a 'lens' or 'blueprint' or 'worldview' through which all decisions about the study were made and understood (Grant & Osanloo, 2014). IKS posits that children learn better when the lessons move from known to unknown using familiar materials and games that are easy to follow and indigenous to the community where learning is taking place (Ejuu, 2019). This theory was appropriate as it helped supported the use of traditional games that are familiar to learners in their local communities and application of teaching pedagogies that are indigenous in nature to

support the acquisition of various skills in preschool learners.

Jean Piaget's theory of play argues that children are active learners and not inactive participants in learning (Parker et al., 2022). Piaget's theory therefore underscores the vitality of using play in teaching of preschool learners. It also plays a vital role of ensuring that learning takes place through peer-to-peer and adult-to-peer learning through imitation and mimicking of others. The theory of play therefore was appropriate to uncover this aspect of learning through that is essential for all learners including those in rural areas. The socio-cultural theory promotes active play in learners, aided by skilled teachers and brings about cognitive development (Ryoo & Kekelis, 2018). In this way, children construct knowledge through interactions between their own age groups and teachers or significant others in the school and at home. The role of the teacher is to illuminate misunderstandings and confirm the discoveries from the children's interactions and innovations. This theory was appropriate as it anchored this study in a perspective that allowed skilled teachers to teach learners using indigenous games in order for learners to improve social skills through culture and active play thereby following the zone of proximal development of each learner. The unskilled teachers were also supported by the socio-cultural theory through researcher-to-teacher interactions during participant observations of lessons.

The three theories worked as complementary frameworks rather than contradictory ones. IKS was important as it helped both teachers and learners to navigate through lessons by using familiar, low-cost and local games in teaching and learning with little struggle. At the same time, Piaget's theory of play showed that teachers can be scaffolders in lessons that children participate in actively especially when the activities are familiar to the learners. The same is true of Vygotsky's socio-cultural theory that encourages learners to engage in social interaction with both their peers and teachers in supporting cognitive development.

#### 4. Research methods and design

The study was qualitative and used a participatory action research (PAR) design to explore the problem at hand. According to Creswell and Poth (2018), qualitative research is an inquiry that is naturalistic in nature and seeks an in-depth understanding of a social phenomenon in its real-life context. The researchers used data obtained from first-hand observations and interviews (Kothari, 2019). Participatory Action Research is a qualitative research methodology that involves researchers and participants collaborating to understand social issues and take actions to bring about social change (Cohen, Manion & Morrison, 2018). The PAR design was appropriate as it enabled the researchers to work with participants to bring about change in the conceptualisation and application of indigenous play pedagogies in improving social skills development in ECE learners through traditional games.

Before data collection, all participants were provided with detailed information about the study's purpose, procedures, potential risks, and benefits. The researchers printed an information sheet which clearly explained the purpose of the study, the procedure for the research process, expected risks and mitigating measures, and the benefits of the study. The information sheet was shared with all sampled participants. A week after sharing the information sheet with the sampled participants, the researchers visited the sampled participants for verbal discussion on the research process, risks and benefits. The sampled participants had the opportunity to ask questions, and permission was only sought after ensuring they understood the extent of their involvement. The participants who agreed verbally to take part in the study were given informed consent/assent forms to sign. Each participant signed the consent form willingly, signifying their agreement to participate in the study. Since the key informants of this study were teachers, they constituted the sample of the study along with their learners especially during lesson observations. The teacher-participants played the role of surrogate parents and assented on behalf of the learners in their classrooms. To preserve privacy, consent forms were kept in a secure location

throughout the study and after the research had ended.

#### 5. Research participants and data generation procedures

Four schools with ECE centres were purposively selected from a population of 163 primary schools in the rural Chibombo District. Only teachers who had been practicing ECE for at least five years were chosen. Purposive sampling was chosen as it is one of the non-probability sampling procedures used to focus on specific cases and issues in the sample. This choice of schools was because each school only had a maximum of three ECE teachers. To gather information, semi-structured interviews were used to delve into the experiences and challenges faced by each teacher when teaching ECE children in a remote setting. Furthermore, the selected teachers were able to share knowledge and their experiences of what they had observed during the time they had been teaching ECE learners. The study had a total of 10 female ECE teachers with varying numbers of learners per ECE classroom due to the rural nature of the research site. All the participants were female because most schools have female teachers at ECE level. The lowest enrolment in the four schools was 37 learners at School 1 in a classroom taught by one teacher while the highest number of learners was 110 at School 3 equally taught by one teacher. The description of the participants and the research site are shown in Table 1 below.

The research site of this study was rural, and the participants were identified by pseudonyms, as shown in Table 1. For example, letter 'T' represents the teacher participant while 'A' is the serial number for the participants ranging from A-J as the participants were ten in total. The number at the end, for instance, 1 represents the school code as schools were labelled 1-4 as shown in the table. Each school has a middle and a reception class taught by the teachers. The least experienced teacher with regard to number of years taught was four years while the most experienced had been teaching ECE for slightly above ten years.

The researchers began by creating rapport with both teachers and learners in the selected schools. Ethical considerations are very vital in any research undertaking that one involves oneself in. An Ethical Clearance Certificate for collecting data was obtained from a relevant Ethics Review Committee on 2023/05/10. (Ethical Clearance Number: REF: 2023/05/10/18026877/11/AM). The researchers ensured that participants' anonymity and confidentiality were assured. The researchers did that by maintaining the security of their documents by using password-protected files, encryption when transferring data online, and even simple closed drawers and doors. Permission to conduct the research in the chosen research site was obtained from the Ministry of Education. Teachers acted as surrogate parents for learners who were members of the classes where lessons were observed. It was made clear to the participants that their agreeing to take part in the study was voluntary and no remuneration was attached, and that each one of them was free to withdraw from participating at any point they felt so. All participants were provided with detailed information about the study's purpose, procedures, potential risks, and benefits. Both verbal and written consent forms were used to provide this information. Participants had the opportunity to ask questions, and permission was only sought after ensuring they understood the extent of their involvement. Each participant signed the consent form willingly, signifying their agreement to participate in the study. To preserve privacy, consent forms were kept in a secure location.

The researchers thereafter interviewed the teachers physically on a one-on-one basis. Individual Semi-structured interviews are more popular, as they provide an interview schedule to guide the conversation, while allowing both open-ended and closed-ended questions to be asked (Kumar, 2019). Individual semi-structured interviews were conducted in a quiet space within the schools to ensure privacy and minimal disruptions to ensure that the teacher's lessons and deliverables were discussed with regards to the types of Indigenous/traditional games which they used when teaching learners in the ECE classes using a play-based learning/teaching approach. Each interview lasted between 45 min to 1

**Table 1**  
Bio-data of the participants.

School	Participant	Gender	Description of the school/research site	No. of Learners	Years of Teaching Experience	Class Taught
School 1	TA1	F	Has adequate outdoor play spaces with a well-maintained classroom. The playground is also used by adult learners in Grades 1 to 9	40	10 years	Reception
	TB1	F		37	9 years	Middle Class
	TC1	F		38	5 years	Middle Class/
School 2	TD2	F	Has adequate outdoor play spaces. The playground is also used by adult learners in Grades 1 to 9. The school has a dilapidated classroom for ECE	47	4 years	Reception
	TE2	F		45	8 years	Middle Class/
School 3	TF3	F	Inadequate outdoor play spaces due to ongoing construction. The playground is also used by adult learners in Grades 1 to 9. The school has adequate classroom spaces	110	7 years	Reception
	TG3	F		70	4 years	Middle Class
	TH3	F		73	5 years	Reception
School 4	TI4	F	Inadequate outdoor play space and small classroom. The school has no playground due to ongoing construction of classrooms	58	4 years	Middle Class/
	TJ4	F		52	9 years	Reception

h and was conducted face-to-face. The interviews were audio-recorded with participants' consent and later transcribed for analysis.

Observations occurred inside the classrooms where teachers implemented play-based learning through indigenous games. Lesson observations were conducted during teaching time. Each classroom was observed for a minimum of two lessons, with each session lasting between two and 3 h, depending on the nature of the lesson. The observation phase lasted two months, with visits scheduled on different days to capture varied teaching approaches. Observations were recorded through detailed field notes and occasional audio or video recordings where permitted. Observations were recorded through detailed field notes and occasional audio or video recordings where permitted. During the last month of data collection, a follow-up interview session lasting 45 min to an hour was conducted. These follow-up interviews aimed to clarify aspects observed in the classroom and allowed participants to reflect on their experiences. In some cases, additional brief observations were conducted to verify the consistency of findings. In some cases, additional brief observations were conducted to verify the consistency of findings.

## 6. Data analysis

Data were analysed using a thematic analysis framework (Cohen et al., 2018) assisted by ATLAS.ti 23, a computer software for qualitative data analysis. In order to verify and validate the appropriateness of the manual data analysis framework, we read and re-read the collected data to familiarise ourselves with the findings. Thereafter, we generated 346 initial codes with 198 code groups from the transcripts of the data. The coding, verification and validation was conducted by one researcher who shared the validated codes with the co-author for final checking and refining. The initial codes were generated from the responses and observations by identifying key concepts in the data and linking them to the research objective and sub-questions of the study.

After initial codes were generated, the researchers searched for themes and validated them. The researchers made follow-ups with participants in order for them to confirm whether the created codes represented their views. The researchers did this by linking the codes to the research objective and question to ensure that the study aim, and goals were achieved. This helped in ensuring that our study was trustworthy and credible.

## 7. Limitations

This study had several limitations ranging from the location of the study site to participants failing to avail themselves of certain parts of the research. The findings in this research were obtained after applying a qualitative research approach which does not allow for generalisation of the results obtained but reveals the uniqueness of the use of play-based

learning approach using indigenous games in rural schools. Due to its lack of generalisability, the researchers have endeavoured to apply the findings only to the study location. The other limitation was the lack of familiarity with some indigenous games by some teachers who did not grow up in the research site, making it difficult for such teachers to teach in a playful manner using local games. The researchers supported the participants by helping them identify local games useful for developing learners' social skills. Participants also benefited from suggestions and demonstrations made by researchers during participant observations. Further, teachers felt uneasy during lesson observations as they were not used to being observed in class. Observations in schools are usually conducted by school inspectors who are usually looking for faults in the lessons. This made teachers hesitate to have their lessons observed. Researchers made a lot of effort to encourage participants to take part in lesson observations by working them in planning of lessons and demonstrating how to teach a particular subject content using traditional games.

## 8. Strengths of the study

This study aimed at determining the effectiveness of play-based pedagogy in enhancing early learning in preschool learners. The sought to extend the applicability of indigenous games in play-based learning in early childhood education practice especially in low-income communities and rural areas of Zambia. The study has therefore promoted and championed the use of indigenous games in play-based pedagogy through the interactions the researchers had with the participants. The study has mobilised knowledge necessary for supporting early learning in preschool learners in the research site. This is evidenced by the results from the study that showed enthusiasm from teachers and learners during lessons that included playful teaching and learning using indigenous games.

## 9. Results

The study findings from interviews and observations were synthesised and presented in three themes namely, indigenous games: play-based learning approach and benefits of using indigenous games in play-based learning and teaching.

### 9.1. Theme 1: indigenous games: play-based learning approach

Play-based learning has emerged as one of the key approaches in teaching and learning of ECE learners in schools. Teachers who participated in this study made several suggestions on how best ECE teachers could improve the learning outcomes of the learners they teach in preschools. During interviews, the findings revealed that teachers endeavour to use play-based learning as a teaching approach for holistic

development in their learners. The lesson observations also revealed the play-based learning approaches that teachers apply during their lesson deliver. An ad hoc network in Fig. 1 shows that most of the teachers in this study used playful teaching approaches.

The ad hoc network in Fig. 1 portrays a situation in which teachers in ECE believe play-based learning or learning through play is a fundamental aspect of teaching and learning for their learners. The findings reveal that participant TA1, for instance, said that teachers

*“should endeavour to incorporate play in the lessons for each day”. She emphasised that “play cannot be separated from teaching”. She added that “what the Zambian school curriculum stipulates on separating play from teaching is impossible in ECE. The idea that teaching should be 40% while play should be 60% is an impossible thing to do. You cannot manage to separate play from teaching ECE learners. I think ECE teachers should just use playful teaching methods from beginning to end. Unfortunately, in our schools, this is not happening.”.*

The participant argued that teachers in primary schools with ECE centres are failing to use playful teaching approaches as they are inclined to modern Eurocentric play materials which are hardly available in rural areas.

The Ad hoc network in Fig. 1 shows learning and teaching approaches that teachers use in their lessons. The approaches in the Ad hoc network above shows that learning through play and or play-based learning approach are dominantly in use by the teachers. Participant [TF3] from school 3 also argues that

*“preschool teachers should endeavour to become knowledgeable on the use of traditional games that promote use of play-based teaching and apply them correctly in a particular lesson and to an appropriate age-group of learners ... produce or make the materials for use in specific games ... making materials for games for oneself helps teachers to be more competent and more familiar with the ways of playing particular games”.*

The participant also suggested that the local games could also be said to help teachers to look at the learning outcomes of each game beforehand thus leading to the best outcomes in the performance of learners in a classroom.

The lessons observed also highlighted pertinent issues that include the teaching and learning approaches teachers apply when teaching preschool learners. Table 2 below depicts approaches, type of traditional games, place of play, teacher and learner participation, researcher interventions, challenges and skills developed. In the observations, ‘OB’ stands for ‘observations’ while the numbers stand for the pseudonym of the participant whose lessons were observed. The schools also are represented by numbers so that the findings are not linked to any schools in the district.

Table 2 above summarises the pedagogical approaches which teachers were using in the teaching of ECE learners during the observation. The findings revealed that indigenous or traditional games were found to be vital in teaching and learning of preschool learning. The teaching and learning approaches observed were play-based and creative approaches among others. It was observed that teachers enjoyed working with children in a creative and play-based manner. During class observations of the lesson taught by the ECE teacher in this study, it was apparent that each one of them desired to deliver lessons that were play-based in nature. Some teachers who taught reception classes or five to six-year-old children used games that were familiar to the children. For example, OB9 in her lessons used games that were familiar to the learners. The games that were played in one of the lessons for Participant OB7 at School 3 included *matching of household* items in a social studies lesson. The game was used as the learners knew the items their mothers usually used at home. The items that were used in the lesson were empty bottles of Coca-Cola, Fanta, sugar pack paper, salt bottles and milkshake containers.

OB2 equally used local games in her lessons and showed some linkages of the knowledge the learners have from home to deliver her lessons through play-based pedagogy. The teacher taught mathematics on number 7. However, the teacher had difficulties in designing age-appropriate games or tools to use. The games she used in her lessons were not user-friendly and age-appropriate to middle class learners who found it hard to play *chiyato/chiyenga* (like Jacks game). The game was challenging as learners could not scoop stones from a hole up to 7 or add the stones due to the rules of the game. The game of *chiyato or chiyenga* is known to be useful and user-friendly by children who are older than 4 years as it requires slightly higher order motor skills. The game is more appropriate for reception learners and Grade One who can follow the rules carefully. Instead of *chiyato or chiyenga*, we suggested a change of the game to another one such as *run and target game*, generally referred to as *game* which equally taught similar concepts. The *run and target game* enabled learners to develop social skills such as socialisation, cooperation, agency and problem-solving skills. In this traditional game, the learners were able to count the number of times each one ran from point A to B. They were also able to separate those who reached first at the endpoint to the number 7. The game also helped learners socialise with each other. In the process, social-emotional development also took place as those who did not run fast learnt to contain their emotions while those who ran fast also learnt that not all learners can run at the same pace. Cognitive development also occurred as children learnt problem-solving skills and memorisation. The findings of the study revealed that ECE learners cannot learn without using a *play-based approach*. The findings show that play-based learning should therefore take centre stage in teaching approaches that teachers can use, especially in rural

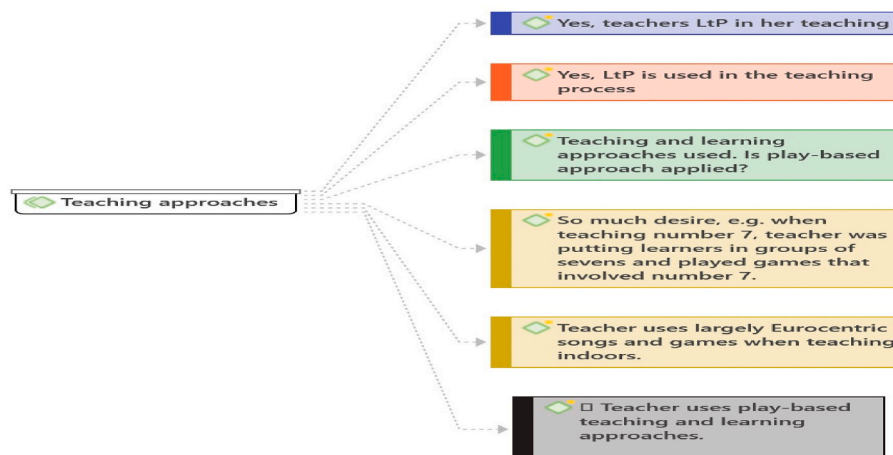


Fig. 1. An ad hoc network of teaching approaches teachers use in ECE.

Table 2

Play-based and creative teaching and learning approaches.

Lessons observed	Teaching approaches	Indigenous games for holistic child development	Classroom/outdoors learning environment	Learner/teacher participation	Researcher intervention	Challenges	Positive skills developed
School 1	Play-based	Nsolo, pada, kambaba, bottle game, bus game	Good classroom with large sports field for all learners	Teacher and learners participate	Appreciating knowledge from home	Inadequate teaching time	Counting, sounds, speaking
School 2	Didactic	Nsolo, chiyato	Dilapidated and isolated class/small play area	Less participation from learners	Supporting peer-peer teaching	Pedagogical limitations	Speaking and sounds
School 3	Play-based and creative	Nsolo, pada, chiyato, kankuluwele, nyenyeezi, mango tainapya	Big and spacious classes, inadequate playground	Learners participate with enthusiasm/teachers are equally active in play/playful activities used	Engaged in tasks in groups with learners/classes with large sizes	Over enrolment/age-appropriate games/limited play area	Reading, writing, speaking, counting, measuring and matching
School 4	Play-based	Nsolo, pada, chiyato, Kambaba, kankuluwele, mango tainapya, bus game, bottle game	One classroom only and no outdoor play area/class also used as a storage room	Learners participate and teachers also endeavour to play/playful activities used	Engaging teachers in games that are learner-appropriate	Limited age-appropriate games/no play area	Reading, speaking, counting, measuring and matching

areas that largely depend on using local games in teaching social skills to learners.

### 9.2. Theme 2: benefits of using indigenous games in play-based learning

The benefits of using traditional games in teaching preschool learners through play-based learning cannot be overemphasised. Teachers shared their views on the benefits that are embedded in using indigenous games for enhancing the acquisition of social skills such as resilience, self-esteem, self-confidence, cooperation and children's agency. Traditional games through play-based learning remain significant in the teaching and learning of pre-primary school learners. Some of the benefits accrued due to the use of traditional games through play-based learning such as self-confidence, agency, resilience and cooperation are undisputed. Participant TA1 stated that "*traditional games help in stimulating children's critical thinking*". She added that "*children also learn social rules and ethics that are used in the community such as respect for elders, protecting each other and helping the needy*". Participant TD2 equally suggested that "*local games give learners a chance to have fun and be active all the time*" during both indoor and outdoor classes.

A participant from School 3 had a lot of ideas on the benefits that can be accrued from using play-based learning in building social skills in learners. Participant TF3 argued that "*local games enhance the cultural values, life skills, self-confidence and discipline of the learners*" in preschools. She also further suggested that "*these games improve children's ability to appreciate their cultural heritage*". Indigenous games were also suggested to have benefits that relate to academic exercises. For instance, Participant TJ4 also argued that "*children also improve in vocabulary, singing, and dancing*" which are vital for cultural exchange and transmission from generation to generation. The acquisition of cultural norms and values was said to be pertinent in teaching using indigenous games. Traditional games also were found to support the development of skills such as socialisation and motivation. Participants from all schools indicated that traditional games are very vital in play-based learning as they support the acquisition of social skills in preschool learners. Besides, the participants stated that games helped learners to be emotionally stable. They claimed that learners learn to cooperate and interact with one another during games that teachers use in the play-based learning approach. Overall, participants argued that traditional games used in play-based learning are very vital as they are known to help learners improve children's developmental milestones that support the acquisition of much-needed social skills. The findings presented show significant benefits of using indigenous games in play-based pedagogy in ECE learners.

It was evident that lessons that do not use traditional games, especially when learners are based in rural schools with little or no access to

modern Western play materials, have significant limitations in achieving the desired learning outcomes. Learners benefitted from the lessons as they learnt from their peers how to play different games, which in turn enabled them to manipulate objects, socialise and solve problems in their immediate play environment. In the process, learning took place as children gradually developed various skills such as expressive and receptive language, cognition, physical skills development, and social-emotional skills.

The findings from interviews and observations interrelate by revealing teachers' reliance on indigenous games and their practical application in the classroom. Interviews highlighted teachers' preferences for these games in rural settings due to the lack of play materials, emphasising their role in fostering holistic development. Observations confirmed these preferences by showing teachers actively incorporating traditional games during lessons, where learners engaged in social development skills, problem-solving, and skill development. Both instruments mentioned above revealed teachers' challenges in designing age-appropriate games, as some games proved too complicated for children, limiting their effectiveness.

## 10. Discussion

The study found that traditional games when used in play-based learning were significant as they were found to support preschool learners in the acquisition of social skills such as self-esteem, self-confidence, cooperation, resilience and appreciation of cultural heritage. The play-based learning also helped learners to develop social norms, values and morals necessary for sustaining relationships in communities and among peers. This is consistent with Bleses et al. (2024) who note that when children learn in a playful setting, either at school or at home, the achievements are higher than when the learning environment is adult-centred. It is worth questioning the extent to which Bleses et al.'s conclusions can be generalised to different cultural or educational contexts. For example, how does the degree of structure in adult-centred environments compare to play-based ones in terms of long-term social skills development? The findings are also in tandem with Tembo et al. (2018) who found that traditional games and activities equipped the learners with athletic, rhythmic and manipulative knowledge, and social, hygienic, and critical thinking skills in primary schools. It is important to consider whether these skills are transferable across varying socioeconomic backgrounds and educational settings. Through indigenous games, learners learnt from each other the various social skills of respect, emotional control, acceptance of defeat and self-control in school and community through the activities the teachers exposed them to. It was the advantages which the games brought to the class which led the teachers in preschools to use play-based teaching and

learning to enable learners acquire the needed relevant skills. This is consistent with [Matafwali and Mofu \(2023\)](#) who found that the use of play-based approaches during outdoor play can contribute to the development of various skills in learners, including social skills. In this case, teachers were able to use the well-planned pedagogical practices which used games to enable the learners acquire social skills using play-based learning. This should be encouraged as learners learn through playing in preschools. This could be scrutinised. Take, for example, while traditional games might be considered a form of resource capital, there is a need to evaluate how sustainable this practice is in modern, technology-driven educational environments.

The study further revealed that the value of using play-based learning approaches in preschools cannot be overemphasised as they should be linked to the education system and provisions of a given community and curriculum. The results show that researchers observed benefits for the teaching and learning approach when traditional games were playfully used in teaching preschool learners. However, the researchers view is that the results cannot be generalised. These findings are consistent with [Matafwali and Mofu \(2023\)](#) who showed that indigenous games can serve as a resource capital for enhancing play-based learning practice in an early childhood education setting. They added that integrating indigenous games can strengthen home-school linkages through active community engagement. Nonetheless, this presumption might ignore contextual subtleties, especially in varied environments where access to certain customs may be restricted or community values become more dispersed. [Matafwali and Mofu \(2023\)](#) argument is further supported by [Ejuu \(2019\)](#) and [Moloi et al. \(2021\)](#) who also advocate that the knowledge that children bring to school from home can serve as a resource for teachers to use when teaching different skills to preschool learners. To depend on parents to create these linkages could worsen current disparities rather than support inclusive learning in communities with poor parental literacy or financial difficulties, for example, in deep rural areas. Play activities at home should complement what children learn in school, but this idea also calls into question how different cultural practices should be incorporated into curriculum design. The researchers call for more research to examine teachers' challenges in juggling formal curricula with community-driven pedagogies, particularly in ethnic contexts, even though integrating traditional games can support holistic learning.

[Madondo and Tsikira \(2021\)](#) also agree that the use of traditional games in teaching preschool learners has a ripple effect than using ordinary teaching methods such as those for primary and secondary learners. This study therefore encourages teachers to effectively implement play-based learning using the reservoir of developmentally appropriate indigenous games that are accessible to them. Traditional games such as *pada*, *chiyato* or *chiyenga*, *nsolo* and *wider* can be of great use in ensuring that all learners acquire social skills of resilience, confidence, cooperation and problem solving among others. The use of play-based pedagogy brings the children's home play environment in the classroom and this makes the learners not to miss home but depend on school for their daily playing. This kind of motivation enables preschool learners to continue loving school while the teachers are using this motivation to teach the new concepts into learners through various traditional games ([Ejuu, 2019](#)). The teachers in this study managed to achieve this goal by using traditional games instead of depending on Western developed games that are unfamiliar, expensive and unavailable to rural schools. The researchers believe that not all methods can be as stimulating in all school contexts, as school contexts are different. Therefore, a critical perspective is needed to evaluate this narrative brought by [Ejuu \(2019\)](#).

The findings of the study also revealed that traditional or indigenous games also increase the overall motivation for learners to cooperate in life, including building resilience in children's lives, especially when the task at hand seems challenging. Traditional games' effectiveness could vary greatly depending on the environment. These games may have great cultural significance in rural or indigenous groups. However, this

may not be the case in metropolitan or multicultural settings where children come from various backgrounds. In these situations, it's possible that not every child would find resonance in the games, which could lead to disinterest instead of motivation. The study also found that the use of games brought out the development of emotional skills as learners interacted in classroom activities. The researchers argue that game-based learning may not benefit every child similarly. In addition, factors such as the type of games, individual learning styles, classroom dynamics, and cultural contexts might impact the extent to which games foster the development of emotional intelligence.

In support of the findings, [Ejuu \(2019\)](#), [Matafwali and Mofu \(2023\)](#) noted that children in Uganda and Zambia respectively were able to acquire social skills such as self-confidence and self-esteem when local games were used in teaching and learning. This presumption, however, does not consider any differences in how various societies view or value traditional games, especially in situations where the influence of contemporary or globalised culture may cast doubt on the continued applicability of Indigenous games. Furthermore, the type of curriculum, the context of the school, and the teacher's ability can all impact the developmental outcomes linked to traditional games. The results are further supported by [Tembo et al. \(2018\)](#) who found that teachers ensured that learners learnt from each other the various social skills of respect, emotional control, accepting defeat and self-control in school and community through the activities they were exposed to. Teachers in this study supported learners in developing their social skills in class through activities because they could work in groups and share ideas after some collaboration. Before the use of play-based activities during lessons, learners were usually ego-centric and did not want to share or work with others. Through games, learners become socially stable hence share play materials and learn other skills from each other. The idea that playing games naturally promotes emotional growth and teamwork may ignore the necessity of teacher support, direction, and scaffolding to make sure these goals are met. Furthermore, whether these results are situational and shaped by the current learning environment or sustained over time is still unknown.

These findings are further supported by [Muir et al. \(2024\)](#) who argue that building capacity in teachers' ability to use appropriate teaching approaches leads to learners developing self-regulation, intellectual skills and social stability. Although increasing teacher capacity is important, there is a chance that this emphasis on the role of the teacher will be overdone without taking systemic obstacles like curricular limitations, big class numbers, or a lack of resources into account, which could reduce the efficacy of such initiatives. Therefore, more nuanced knowledge of how these practices can be applied consistently and reasonably is required, even though these findings indicate the advantages of traditional games in promoting social and emotional abilities.

The findings also show that traditional games used in play-based learning were vital as they were known to help learners improve their developmental milestones that support the acquisition of social, memory, problem-solving and creativity skills development. In line with this argument, [Nxumalo and Mncube \(2019\)](#) also agree that children's play involves learning the language of the game and its motor movements which make the game interesting and sociable. Through this, learners can memorise the games, use them to solve immediate problems and cooperate in the play activities with peers by allowing one another to have a chance to play the game thereby showing a great sense of agency and leadership among them. Therefore, teachers in ECE classes should continue using traditional games to teach learners new skills which are relevant to their educational progress. However, it asks whether these methods can be scaled up and maintained in various educational environments. While some situations may lend themselves to traditional games, others may not be able to meet the demands of standardised curricula or contemporary educational technology that emphasises distinct skill sets.

The findings further revealed that traditional games help in stimulating children's critical thinking, learning of social rules, respect for

elders and helping the needy in society. The diversity of learning environments and learner experiences may be oversimplified by the notion that conventional games universally convey these values and skills. This is consistent with what Kejo (2017) found that traditional games when used by teachers in preschools led to the acquisition of skills that were useful for the community such as critical thinking and blending in the society. Ejuu (2019) also suggested that traditional games and play-based learning were vital for enhancing the acquisition of cultural values and norms in society. The findings in this study also showed that traditional games supported the appreciation of cultural values, life skills, self-confidence and discipline in learners. The use of play-based pedagogy can be seen to contribute to the learner's critical thinking like decision making and following the rules of the game which later extends to following the rules of the community. Reinforcing strict cultural standards has the risk of making them less useful or practical in modern society, particularly when tradition preservation takes precedence over more progressive principles. Therefore, play-based learning is unlimited to play and class but affects the learners in the wider community and life in general (Bleses et al., 2021; Muir et al., 2024). The assumption that playing traditional games naturally promotes better social behaviour and community involvement needs further empirical support, particularly in situations where students may encounter social or financial obstacles that prevent them from participating in these children of activities.

Further, the findings of the study revealed that play-based learning using local games was found to support the development of skills such as socialisation and motivation for the learners in the pre-schools. Although these findings are promising, it is important to challenge the assumption that traditional games consistently develop these skills across a range of learner demographics. These findings are in tandem with Baradaran et al. (2018) who argued that traditional games are effective in improving preschool children's social development and emotional intelligence. For this reason, parents need to be informed about the positive effects of traditional games and should be encouraged to provide their children with the opportunity to play such games. As such, it is the role of the teachers and parents to make the children develop an interest in the games and make sure that they introduce relevant games to make them develop different skills. It takes more than just introducing children to traditional games to get them involved; you also need to provide them with constant encouragement, positive reinforcement, and a nurturing environment. Not every child will be equally motivated by traditional games. Therefore, teachers and parents must be aware of each learner's interests and needs.

The study also shows that teachers had the desire to use traditional games to teach different skills in preschool classrooms, but they did not have the knowledge and skills that were necessary for the promotion of creativity and innovation in children through songs and games. The results of this study present serious questions regarding the professional growth and training of Early Childhood Educators. The findings from this study resonate well with the findings from Madondo and Tsikira (2021) who also found that modern-day teachers preferred Eurocentric teaching approaches and materials to indigenous/traditional games and teaching approaches. The preference was found to be largely based on teachers' lack of knowledge and skills, including creativity and resourcefulness in the use of traditional games in teaching preschool learners. It is therefore vital to encourage teachers to use traditional games and play-based learning as suggested by Matafwali and Mofu (2023) who also agree that traditional games help build creativity in learners and enhance teamwork as children work in groups. This also leads to promotion of ownership in children as they learn to interact and cooperate with peers in the class tasks assigned by teachers or by themselves. The foregoing means that indigenous games when used in a play-based learning approach encourage children to work with concrete objects from the traditional games to promote the acquisition of social, memory, problem-solving and creativity skills through the teacher's support (Bleses et al., 2024; Muir et al., 2024). For this reason, this study

encourages teachers to use play-based teaching approaches that incorporate indigenous games that are familiar to the learners, are inexpensive, readily available in rural communities, easy to use and can be learnt by preschool children. This undertaking will provide a wonderful opportunity for all learners in preschools to acquire the needed social skills and develop holistically. Play-based learning activities should encourage children to think critically, creatively, and cooperatively. It shouldn't be limited to vintage video games. Teachers require support in implementing traditional games and integrating them into a more all-encompassing educational framework that focuses on a range of learning goals. Without it, the potential benefits of traditional games can go underutilised or be restricted to specific scenarios.

## 11. Conclusion and recommendation

The study objective was to establish how effective play-based learning is when used as a pedagogical approach for enhancing skills development in ECE learners in Zambia using indigenous games. The study concludes that the use of traditional games in a play-based learning approach supported preschool learners in acquiring fundamental social skills such as resilience, cooperation, respect for elders and peers, teamwork, managing emotion, self-confidence, self-esteem, problem-solving, creativity and innovation. It can also be concluded that the value of using play-based and creative teaching and learning approaches in preschools cannot be overemphasised as they need to be linked to the education system and provisions of a given community and curriculum. The teachers observed benefits for the teaching and learning approach when traditional games were used in teaching preschool learners in a playful manner, as this led to increased overall motivation in learners and promotion of cooperation in children's lives. To this end, it can be concluded that the use of traditional games in play-based learning approach brought out the development of social-emotional skills and resilience, improved children's developmental milestones, and helped in stimulating children's critical thinking, learning of social rules, respect for elders and helping the needy in society. Overall, the study concludes that children develop all the necessary skills that are needed not only in future life but also during childhood when play-based learning is used as a pedagogical approach in preschool lessons using indigenous games. To support holistic development, it is recommended that teachers and policymakers more systematically integrate Indigenous games and IKS into the ECE curriculum. It is advised that teacher preparation programs strongly emphasise providing educators with techniques for integrating classic games into the classroom.

## CRediT authorship contribution statement

**Grant Mapoma Mwinsa:** Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Murunwa Dagada:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization.

## Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used Chart GTP to reasons. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

## Funding statement

No particular grant from a public, private, or non-profit organization was given for this article.



## Declaration of competing interest

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article. No particular grant from a public, private, or non-profit organization was given for this article.

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