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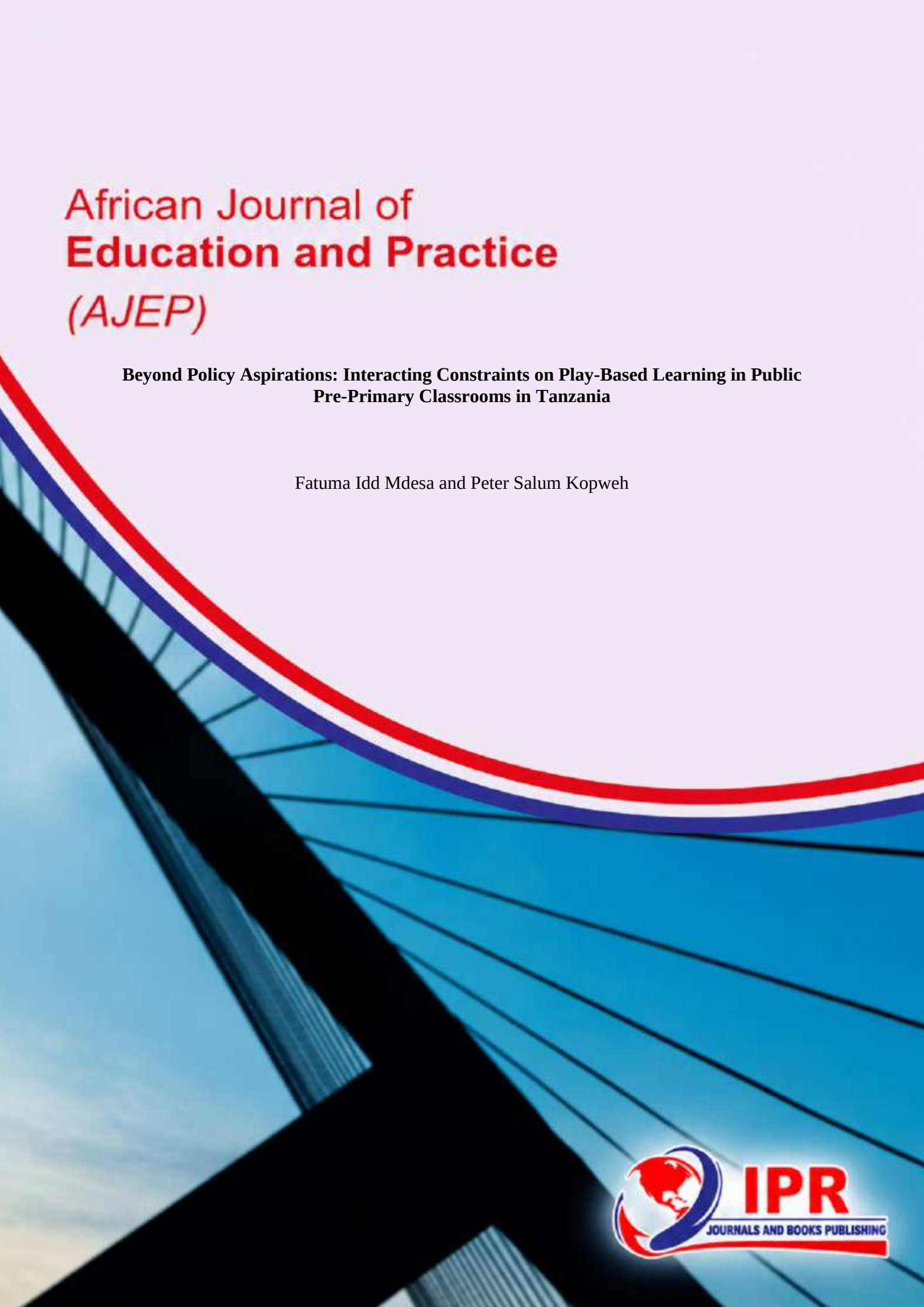
Fatuma Idd Mdesa and Peter Salum Kopweh



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Beyond Policy Aspirations: Interacting Constraints on Play-Based Learning in Public Pre-Primary Classrooms in Tanzania

[1*]Fatuma Idd Mdesa
Ruaha Catholic University
[2]Peter Salum Kopweh
Ruaha Catholic University

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Abstract

Purpose: This study examined challenges to implementing play-based learning in public pre-primary units in Tanzania's Tanga Region, drawing on evidence from Lushoto and Handeni District Councils.

Methodology: The study adopted an interpretivist paradigm, a qualitative approach and a descriptive case study design. Data were collected from 18 purposively selected participants, ten pre-primary teachers and eight head teachers, using semi-structured interviews, classroom observations and document reviews. The obtained data were thematically analysed using Braun and Clarke 2006 steps.

Findings: Thematic analysis identified the main constraints: inadequate and unsafe infrastructure; shortages of play materials and equipment; limited continuing professional development; large classes; children's varied ages and linguistic backgrounds; parental expectations; and teacher motivation. These challenges reinforced one another. Limited resources and space restricted classroom activities, while inadequate professional development and competing expectations hindered the translation of curriculum intentions into practice.

Unique Contribution to Theory, Practice and Policy: Effective implementation therefore requires more than encouraging teachers to adopt play-based learning. It depends on coordinated institutional support, suitable infrastructure, accessible teaching materials, sustained professional development, and stronger parent engagement. The study contributes context-specific evidence to discussions of child-centred pedagogy in resource-constrained early childhood education settings.

Keywords: *Play-Based Learning, Pre-Primary Education, Teacher Challenges, Early Childhood Education, Public Schools, Tanzania*

JEL Codes: *I21, I28, I20*

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INTRODUCTION

Play-based learning (PBL) is central to contemporary early childhood education. Through meaningful activities, children explore their surroundings, build social relationships, express creativity and develop understanding. Rather than viewing play as a break from instruction, educators use purposeful play to support cognitive, linguistic, physical, emotional and social development (Pyle & Danniels, 2017; Taylor & Boyer, 2020; Zosh et al., 2017) . This approach is especially valuable in the early years, when active participation, exploration and interaction with the environment promote learning.

International and national commitments recognise play's importance. Article 31 of the United Nations Convention on the Rights of the Child protects children's right to play and participate in recreational activities. In Tanzania, the Tanzania Institute of Education (TIE) Pre-Primary Education Curriculum provides the formal framework for teaching and learning at this level, emphasising competency development through developmentally appropriate pedagogical approaches (United Republic of Tanzania Ministry of Education Science and Technology, 2023). These curriculum expectations reinforce the importance of play as an integral component of early learning rather than an optional activity dependent on available time or resources.

Nevertheless, curriculum provisions supporting PBL do not ensure effective classroom implementation. Translating policy into practice requires suitable learning environments and materials, professional expertise, manageable classroom conditions, and stakeholder cooperation. Barriers include inadequate teacher preparation, limited play resources, misconceptions about play, and curriculum pressures (Mahadew & Amin, 2025), reflecting institutional and material constraints as well as teachers' shortcomings.

Tanzania's formal integration of pre-primary education into the public schooling system has heightened the importance of understanding how teachers implement curriculum expectations in everyday classrooms. Although advocates promote PBL as developmentally appropriate, studies report that pre-primary teaching may remain dominated by memorisation, repetition and teacher-directed academic activities (Kejo, 2017; Kihombo, 2015; Mgonja & Kambuga, 2023). These practices raise questions about the conditions that enable or constrain teachers' use of play.

These challenges are particularly significant in public pre-primary units, where teachers must address children's developmental needs within their schools' physical, organisational and professional constraints. An unsafe playground may deter outdoor activities; limited materials may restrict learning experiences; and large classes may complicate the organisation and supervision of collaborative play. A lack of regular professional development may further limit teachers' ability to adapt play activities to these conditions. These factors may interact rather than act as isolated obstacles, may therefore interact rather than operate as isolated obstacles.

Despite these concerns, a context-sensitive understanding of how these challenges interact in Tanzanian public pre-primary classrooms remains essential. Evidence from specific school settings can show which barriers teachers face and how those barriers affect their capacity to meet child-centred pedagogical expectations. Such evidence moves beyond general calls for more play to identify the institutional support required to make this expectation practicable. This article examines the challenges affecting PBL implementation in public pre-primary units in Lushoto and Handeni District Councils, Tanga Region, Tanzania.

Statement of the Problem

Although previous studies have examined challenges associated with early childhood education and the use of child-centred pedagogy in Tanzania (Kejo, 2017; Kihombo, 2015; Mgonja & Kambuga, 2023). Limited attention has been given to how the different institutional, material, professional and sociocultural constraints interact to shape the implementation of PBL in public pre-primary classrooms. Existing discussions identify challenges such as inadequate resources, teacher preparation and classroom conditions, but their combined implications for teachers' everyday implementation practices require further contextual examination. This study addresses this gap by exploring how these interacting constraints influence PBL in selected public pre-primary units in Lushoto and Handeni District Councils, Tanga Region.

Furthermore, the study is guided by this question: What challenges affect the implementation of PBL in public pre-primary units in the Tanga Region of Tanzania? It advances early childhood education research by examining how teachers' implementation experiences relate to the institutional conditions in which they work. The article argues that implementing PBL is a context-dependent pedagogical process shaped by interacting material, professional, organisational and sociocultural constraints.

Theoretical Framework

The analysis applies three complementary perspectives from the original study: Piaget's cognitive constructivist theory, Vygotsky's sociocultural theory and Borg's teacher cognition theory (Borg, 2003; Piaget, 1962; Vygotsky, 1978). Together, these perspectives frame how classroom environments, social interactions and teachers' professional knowledge shape PBL implementation.

Piaget's Cognitive Constructivist Theory

Piaget's cognitive constructivist perspective emphasises children's active role in constructing knowledge through interaction with their environment (Piaget, 1962). Play enables children to explore objects, test ideas and develop understanding through practical engagement. The theory is relevant to this study because inadequate materials, unsuitable classroom layouts and unsafe playgrounds may limit children's opportunities to handle objects, explore their surroundings and engage in meaningful play. The analysis therefore examines whether the material conditions in public pre-primary units support the active learning required by PBL.

Vygotsky's Sociocultural Theory

Vygotsky's sociocultural theory emphasises the role of social interaction, language and cultural mediation in children's learning (Vygotsky, 1978). PBL fosters interaction among children and between children and teachers. Through these interactions, children negotiate meaning, follow instructions, learn from peers and take part in activities guided by more knowledgeable others.

This perspective is particularly relevant to the challenges posed by large classes, children's differing developmental stages and language barriers. When teachers and children lack a shared language for classroom interaction, or overcrowding limits meaningful engagement, organising the social processes through which learning occurs becomes more difficult.

Teacher Cognition Theory

Teacher cognition theory draws attention to the relationship between teachers' beliefs, knowledge, professional experiences and instructional decisions (Borg, 2003). Teachers'

capacity to implement PBL depends partly on how they understand play as a pedagogical approach and whether they possess the knowledge and confidence to organise appropriate activities.

This perspective informs the analysis of professional development and motivation. Limited training opportunities may reduce teachers' familiarity with diverse forms of play and their capacity to integrate play into the curriculum. Working conditions and competing expectations may also affect teachers' willingness or perceived capacity to sustain play-based approaches.

The three perspectives complement rather than replace one another. Piaget's theory focuses on the material conditions that support children's active exploration; Vygotsky's highlights social and linguistic conditions; and teacher cognition theory explains how professional knowledge and contextual pressures shape teaching practice. Together, these perspectives enable an examination of PBL implementation as a process shaped by children's learning needs, teachers' capabilities and the institutional environment.

These dimensions do not operate in isolation; rather, teachers' cognition, including their beliefs, knowledge and professional experiences (Borg, 2003) mediates how they respond to material constraints, such as shortages of play materials and inadequate facilities (Piaget, 1962) within overcrowded social and linguistic environments that shape children's opportunities for interaction and guided learning (Vygotsky, 1978).

METHODOLOGY

The study adopted an interpretivist paradigm, a qualitative approach and a descriptive case study design to develop an in-depth understanding of teachers' experiences of implementing PBL in public pre-primary units in Lushoto and Handeni District Councils, Tanga Region, Tanzania. Eighteen participants, comprising ten pre-primary teachers and eight head teachers, were purposively selected based on their relevant experience and responsibilities. Data were collected through semi-structured interviews, classroom observations, and document reviews of lesson plans, schemes of work, and class journals. Interviews enabled participants to describe their experiences and explain the challenges affecting PBL implementation, while classroom observations documented the physical and organisational conditions surrounding play activities. Interviews were conducted primarily in Kiswahili, with English also used according to participants' preferences, and the interview material was translated into English while seeking to preserve participants' intended meanings. Data were analysed thematically using Braun and Clarke (2006) six-phase framework, while content analysis complemented the examination of observational and documentary materials. Trustworthiness was supported through triangulation, allowing interview accounts to be compared with classroom observations and documentary evidence. The findings provide contextual and analytical insights into the selected public pre-primary units rather than statistically representative estimates of challenges across Tanzania.

Ethical Considerations

The study complied with all ethical protocols. Research clearance and permission were obtained from Ruaha Catholic University and the relevant local authorities. Verbal and written informed consent was secured. Confidentiality and anonymity were maintained through participant codes. Participants could withdraw at any time without restriction.

FINDINGS

The analysis identified six barriers to PBL in public pre-primary units: inadequate facilities and play materials, limited teacher training, large classes, diverse learners, parental expectations, and low teacher motivation. Interviews, observations, and documents confirmed these hindered play-based teaching.

Unsupportive School Infrastructure and Classroom Environments

The findings showed that several participating pre-primary units lacked facilities suited to play-based learning. Challenges included no dedicated playgrounds, uneven or sloping outdoor surfaces, insecure school grounds, unsuitable classroom locations and inappropriate desks. These conditions limited teachers' capacity to organise safe, varied play activities.

The interviews revealed that some schools lacked adequate outdoor space altogether. A teacher explained:

> *"The outside environment is not friendly; there is no place that we can sit and play comfortably with children."* (Personal communication, PPUT1 from PPU1, March 12, 2024).

This account shows that the difficulty extended beyond a shortage of recreational facilities: the lack of suitable space limited teachers' ability to create an environment for children to engage comfortably in purposeful play.

Where playgrounds existed, poor conditions created further difficulties. One teacher described the safety risks posed by uneven surfaces:

> *Our environment, especially the playground, is full of stones and uneven surfaces, so when they play, I have to be there to watch out for them because they can get hurt. I sometimes prohibit them from playing there, fearing that they will be injured* (Personal communication, PPUT2 from PPU2, March 13, 2024*).*

The account highlights the tension between encouraging play and protecting children from injury: although teachers recognised the educational value of outdoor activities, they restricted them because the environment was unsafe, with observations identifying unsecured outdoor spaces where paths and roads crossed areas used for children's activities.

Infrastructure-related difficulties also affected classrooms. Some teachers reported too few desks; others reported desks unsuitable for children's height. One teacher explained:

> *In my class, I have only four desks, located at the back of the classroom, but most of the children are playing on the mats, which their parents have bought. However, I sometimes want these children to sit on desks, but there are not enough desks to accommodate all the children* (Personal communication, PPUT2 from PPU2, March 13, 2024).

These findings suggest that infrastructure constraints limited outdoor movement and indoor learning. Insufficient space, unsuitable furniture and safety concerns restricted the range of play experiences teachers could organise. The physical environment therefore imposed a substantive pedagogical constraint rather than serving merely as a backdrop.

Inadequate Play Materials and Equipment

A second challenge was the limited availability of play materials and equipment. Some schools had balls, bottles, skipping ropes, number and alphabet cards, and other locally available

resources, but provision varied. Classroom observations also found little digital play equipment, limiting technology-supported play activities.

The findings should not be taken to mean that PBL was entirely absent. Teachers used locally available materials, showing that play could continue despite limited resources. Nevertheless, improvisation did not overcome the limitations associated with shortages, particularly when activities required specific materials or equipment.

One teacher highlighted the lack of opportunities to incorporate digital play: *"There are other plays the child should play on the computer or using other digital tools as far as the changing world is concerned that stimulate their mind. Unfortunately, we do not have such play tools."* (Personal communication, PPUT9 from PPU7, March 21, 2024). A head teacher similarly explained that the absence of technological resources limited the activities available to teachers and children. These accounts illustrate the gap between teachers' recognition of potentially useful learning experiences and their ability to provide them.

Resource shortages therefore restricted the range of activities teachers could implement. When suitable materials were unavailable, teachers relied on fewer activities or adapted locally available resources. This increased demands on teachers and limited opportunities to create varied, developmentally appropriate learning experiences.

Limited Access to Continuing Professional Development

The findings showed that irregular professional development left teachers without the knowledge and confidence needed to sustain PBL implementation. Although some teachers attended curriculum-related training, others received little or no relevant training after appointment. Participants also said sessions were too brief to provide adequate practical preparation.

One teacher expressed uncertainty about newer forms of play:

> *I am not well-informed about the modern plays that are most interesting to children. This is difficult for veteran teachers like me, as we were trained to play with others like 'ukuti-ukuti'. Frankly speaking [laughing], I have heard about digital play, but I don't know how to prepare for and use it in teaching and learning. Therefore, it is important to learn more about these modern plays.* (Personal Communication, PPUT4 from PPU4, March 15, 2024).

Another participant linked a narrow range of familiar activities to reduced professional confidence.

> *Although I have been oriented to using play as a teaching strategy for pre-primary school children, I have found only a few types of play. The limited number of play activities reduces confidence in teaching these children through play. Therefore, in-service training will help us share different knowledge related to PBL* (Personal communication, PPUT6 from PPU5, March 19, 2024).

These accounts show that the challenge extended beyond workshop attendance to the continuity, practical relevance and adequacy of professional learning. Limited familiarity with activities could constrain teachers' ability to adapt play to varying competencies, children's interests and available resources.

The findings also highlighted the need for professional development among head teachers. Only two of the eight interviewed had received pre-primary education training. This gap was

significant because head teachers supervised teachers whose pedagogical practices they might not fully understand. The need for professional development therefore extended beyond classroom teachers to the leadership structures responsible for supporting implementation.

Large Class Sizes and Limited Individual Attention

Large class sizes posed a major organisational constraint. Enrolments ranged from 41 to 274 children, far exceeding the policy-recommended ratio of one teacher to 25 children and placing pressure on the organisation, supervision and assessment of play activities. A head teacher described the implications of overcrowding:

> *An overcrowded classroom reduces the efficiency of play-based teaching. For example, PBL is inefficient if 274 children are in one class with only one teacher. At this stage of children's development, teachers need to reach each child closely, but one teacher cannot manage them* (Personal communication, Head teacher from PPU5, March 15, 2024).

Another head teacher highlighted the challenges of supervising children in an overcrowded classroom:

> *The number of children per class did not adhere to the set standard; there are many children in the class, and there is only one teacher. Therefore, she cannot fully participate in the play or supervise the children at all times* (Personal communication, Head teacher from PPU3, March 14, 2024).

These quotations show that overcrowding restricted the interpersonal engagement central to PBL. Teachers supervised large groups, maintained safety, organised activities and met children's differing needs, making it harder to monitor individual progress and provide timely guidance.

Class size also compounded shortages in infrastructure and resources. Crowded classrooms reduced space for indoor activities, while limited materials restricted opportunities for active participation. Overcrowding therefore intensified other implementation difficulties rather than acting as a separate problem.

Children's Differing Ages and Linguistic Backgrounds

The findings showed that teachers faced challenges arising from pupils' varying ages and linguistic backgrounds. Children in the participating pre-primary units were aged three to five. Differences in age and developmental readiness made it more difficult to organise shared play activities for the whole class.

> *I face some challenges in working with children from different age groups. The younger child needs to play with toys and engage in other play activities with less educational emphasis, while the older child needs to be taught through play, including the competencies required for primary school entry* (Personal communication, PPUT8 from PPU7, March 20, 2024).

The preceding quotation highlights the challenges teachers face when implementing PBL in mixed-age classrooms, where children have diverse developmental needs and learning expectations. Teachers must therefore tailor PBL activities to children's ages, abilities, interests and learning needs, while recognising that play supports learning at every stage.

Language also shaped children's participation in PBL activities. Although Kiswahili served as the medium of instruction, some children knew local languages better than the language used by their teachers. One participant described the difficulty of communicating instructions:

> *I sometimes become puzzled by these children. You can find that I teach them a certain play, but it becomes difficult for them to follow the instructions I provide because they are unfamiliar with the language I use to interact with them* (Personal communication, PPUT7 from PPU6, March 20, 2024).

Another teacher explained:

> *Language is another significant barrier to the effective application of PBL in this PPU. Most children speak a vernacular language with which I am unfamiliar. As a result, when I use Kiswahili during play-based learning activities, they also face difficulties. It's truly puzzling that we can't understand each other in this era. Hence, it takes a long time to ensure that they master the type of play I am teaching* (Personal communication, PPUT8 from PPU7, March 21, 2024).

These accounts show that linguistic differences could delay children's understanding of instructions and limit participation in play. As PBL relies on interaction, explanation, negotiation and shared understanding, language barriers could hinder activity management and children's learning through social engagement.

The findings therefore point to the need to consider children's linguistic resources and developmental differences when planning play-based activities. The challenge should not be attributed solely to children's characteristics; it also concerns the extent to which teachers and institutions are equipped to respond to diversity in the classroom.

Parental Expectations and Attitudes towards Play

Parental expectations posed another challenge. Some parents prioritised visible evidence of academic progress, particularly in reading, writing and counting, and preparation for primary school. Consequently, they did not always recognise play as a legitimate means of developing academic skills.

One teacher explained:

> *Some parents wanted their children to acquire academic skills. When they found that their children learned through play, they believed their children were playing throughout without any academic gain. In that case, they asked me to teach more academic skills* (Personal communication, PPUT5 from PPU4, March 15, 2024).

Another teacher described how these expectations could influence instructional choices:

> *Parents are more interested in academic skills. They want their children to master the skills needed for school entry. This compels us, as teachers, to put more effort into achieving these goals by using time-saving teaching methods, rather than play-based learning, which seems to take much time* (Personal communication, PPUT10 from PPU8, March 22, 2024).

Beyond academic expectations, some parents worried that outdoor play would leave children dirty. A teacher reported that fear of punishment at home for dirty clothes deterred some children from participating. A headteacher noted that parents sometimes complained about the additional washing.

These findings suggest that parental attitudes may shape teachers' pedagogical decisions and children's willingness to participate. When parents viewed play as wasted teaching time or a source of domestic inconvenience, teachers faced competing expectations about appropriate pre-primary education.

The challenge therefore concerned communication and shared understanding. Teachers might value play as a learning strategy, while parents might judge educational progress through more visible academic exercises. Without agreement on how play supports learning, curriculum expectations could conflict with parental demands.

Limited Teacher Motivation and Institutional Support

The final theme concerned teacher motivation, particularly support from school leaders. Findings showed that teachers felt discouraged when school leaders failed to recognise efforts to implement PBL or associated play with disorder.

One teacher explained:

> *I sometimes become discouraged from using play as a means of instruction for pre-primary children because of my head teacher. My head teacher does not appreciate the effort I make to help these children learn through play. It is so disappointing* (Personal communication, PPUT1from PPU1, March 12, 2024).

Another participant described the consequences of negative perceptions of play among school leaders:

> *I do my best to ensure children enjoy learning and fun activities through play, which is an important teaching strategy for young children. However, my school leaders demotivate me by claiming that play causes chaos among other pupils in school. I am really disappointed to continue teaching through play* (Personal communication, PPUT4 from PPU4, March 14, 2024).

However, findings varied across schools. Some head teachers encouraged teachers, recognised their efforts and provided support. This variation suggests that leadership practices could either compound the difficulties teachers faced or sustain their commitment to PBL. Teacher motivation should therefore not be treated as an individual psychological trait. Evidence links motivation to institutional recognition, leadership understanding and working conditions. Inadequate resources, overcrowding and limited training, coupled with insufficient professional encouragement, made sustained implementation more difficult.

Discussion

The findings identify seven interrelated conditions that constrained the implementation of PBL in participating public pre-primary units: inadequate and sometimes unsafe infrastructure; shortages of play materials; limited continuing professional development; large classes; variation in children's ages and linguistic backgrounds; parental expectations; and inconsistent teacher motivation and leadership support. These findings accord with research that identifies resource constraints, inadequate teacher preparation and competing expectations as barriers to child-centred pedagogy. The study adds contextual detail by showing how these barriers compound in everyday practice. Viewed through Piaget's cognitive constructivism, Vygotsky's sociocultural theory and Borg's teacher cognition theory, the findings indicate that PBL requires more than teachers' willingness to use play. It also depends on children's access to suitable materials, meaningful interaction, teachers' pedagogical knowledge and institutional support. Policy commitments to PBL therefore require coordinated improvements in school conditions, rather than reliance on teachers to overcome structural constraints individually.

The Material Conditions of Play-Based Pedagogy

Findings on playgrounds, classroom space, furniture and play materials indicate that the physical environment directly shaped the range and safety of activities teachers could organise. Teachers reported unsuitable or absent play areas, uneven surfaces and inadequate desks; observations also identified conditions that could make outdoor play unsafe. These findings accord with research identifying inadequate resources and facilities as barriers to developmentally appropriate (Mahadew & Amin, 2025; Nampijja et al., 2024). Petro et al. (2023) found that none of the 34 observed classrooms had a designated indoor play area. Seven schools also lacked playgrounds, while the presence of outdoor grounds did not necessarily mean that these spaces were designated for pre-primary children. This evidence highlights the need to distinguish between indoor play areas and appropriate outdoor play spaces. From Piaget's cognitive constructivist perspective, this distinction matters because children construct understanding through active exploration and engagement with objects and environments (Piaget, 1962). Restrictions on outdoor play to prevent injury, or insufficient space for movement and manipulation, may limit opportunities for such exploration. Infrastructure is therefore a pedagogical condition, not merely a facilities issue. Education authorities and school leaders should prioritise safe, age-appropriate play spaces and furniture as part of curriculum implementation. The findings reinforce concerns that inadequate play resources constrain developmentally appropriate teaching (Mahadew & Amin, 2025; Nampijja et al., 2024) and accord with (Petro et al. (2023) finding that none of the 34 observed pre-primary units had dedicated play areas.

The findings also show that shortages of play materials did not halt play entirely. Teachers adapted locally available materials to sustain activities, although limited resources restricted the range of play, they could offer. Purposeful play's pedagogical value depends on active engagement and on teachers' links between activities and learning goals (Pyle & Danniels, 2017; Zosh et al., 2017). From a Piagetian perspective, improvised objects can support manipulation and exploration, provided they are suitable, safe and available. Improvisation should supplement, not replace, institutional provision. Locally available materials offer a practical supplement, while schools and education authorities remain responsible for providing adequate, safe and varied resources. Celebrating teacher creativity without addressing shortages risks normalising inequitable learning conditions.

The implication is that resource planning should combine adequate institutional provision with support for safe, context-sensitive improvisation. Schools can encourage teachers to use locally available materials where appropriate, but education authorities should not treat this adaptability as a substitute for safe play spaces and a sufficient range of learning resources.

Professional Development and the Enactment of Curriculum Expectations

The findings indicate that teachers had uneven access to continuing professional development, and some felt insufficiently prepared to use a wide range of play activities. Some reported limited familiarity with newer forms of play; others said brief or irregular training failed to build confidence. These findings align with literature identifying limited preparation and professional support as barriers to PBL.

Teacher cognition theory helps explain the significance of this finding: teachers' instructional decisions reflect the knowledge, beliefs and experiences they bring to classroom practice. Without adequate opportunities to learn how play can address curriculum competencies, teachers may rely on a narrow range of familiar activities, even when they value PBL. The

findings also show that professional learning must include head teachers, whose limited preparation may undermine effective supervision and encouragement.

A practical implication is to provide sustained, activity-based professional development, peer learning and follow-up mentoring for teachers and school leaders. Training should reflect the realities of crowded, resource-constrained and linguistically diverse classrooms. Curriculum expectations alone cannot ensure consistent classroom implementation. Teachers need opportunities to develop practical knowledge of linking play to learning competencies, observing and supporting children's participation, and adapting activities to different classroom conditions.ties can be adapted to different classroom conditions.

The findings also show that professional learning should extend beyond a single training event. Concerns about irregular, brief training highlight the need for continuity, practical engagement and follow-up support. Professional development should also include school leaders, whose interpretations of PBL shape the support available to teachers. These findings align with research identifying limited teacher preparation and inadequate professional support as barriers to play-based pedagogy. They further indicate that professional development works best when it reflects the conditions teachers face, including overcrowded classrooms, limited resources and linguistically diverse groups of children.

Overcrowding as a Multiplier of Implementation Difficulties

Large classes posed a major organisational constraint. Teachers had to supervise play, maintain safety, encourage participation and assess children across very large groups. Reported enrolments, including one class of 274 children with a single teacher, demonstrate the severity of the conditions described by participants. These findings reflect concerns in Tanzanian research about classroom conditions and shortages of qualified early childhood education personnel (Shukia & Marobo, 2022).

Vygotsky's sociocultural theory offers an interpretive lens: play-based learning relies on interaction, language, guidance and collaboration (Vygotsky, 1978), while overcrowding hinders sustained exchanges and individual scaffolding. Large classes also intensified other challenges, including insufficient materials, limited movement and varied developmental and linguistic needs. The issue therefore extends beyond teachers' classroom-management skills. Findings support action on staffing, enrolment distribution and classroom allocation, alongside practical strategies for organising group play. Such measures would improve conditions for interaction rather than simply requiring teachers to manage ever larger groups.

The findings align with broader research on early childhood education in Tanzania, including (Shukia & Marobo, 2022), cited in the dissertation on classroom conditions and shortages of qualified personnel. The United Republic of Tanzania Ministry of Education Science and Technology (2023) sets a pre-primary teacher-pupil ratio of 1:25 and reports an average ratio of 1:94 in 2022. This gap highlights the scale of the staffing challenge in pre-primary education. Interpret the implications of large classes in relation to participating teachers' accounts and classroom observations, without assuming that the national average applies uniformly across study sites.

From a sociocultural perspective, overcrowding can limit the quality of interactions through which children learn from teachers and peers. Collaborative play can engage many children in a shared activity, but does not replace individual attention, observation and guidance. The findings suggest that class size compounds other barriers: when one teacher is responsible for

a large group, shortages of materials have greater consequences, safe movement becomes harder to organise, and linguistic and developmental differences become more difficult to accommodate. Treating the issue solely as classroom management would overlook its structural dimensions.ral dimensions.

Language, Development and Inclusive Participation

The findings indicate that differences in children's ages and familiarity with the language of instruction made it harder for teachers to organise shared play. Teachers had to balance younger children's developmental needs with older children's preparation for primary school; some also reported that children struggled to follow instructions in a less familiar language. These accounts point to a mismatch between classroom diversity and available support, rather than to deficits in the children themselves. Vygotsky's sociocultural theory emphasises the role of language, social interaction and mediation in learning (Vygotsky, 1978). Instructions that children do not understand may therefore limit participation in collaborative play and reduce opportunities for learning through interaction. Developmental differences also require adaptable activities and varying levels of guidance. Teachers need support to use demonstrations, gestures, peer assistance, familiar-language resources where appropriate, and activities suited to different ages and abilities. The study offers a contextual account of how linguistic and developmental diversity interacts with limited classroom capacity to shape PBL implementation in public pre-primary units.

These findings do not show that children's linguistic or developmental differences are inherently problematic. Rather, they point to a potential mismatch between classroom diversity and the support available to teachers. Inclusive practice requires pedagogical flexibility and opportunities for children to participate using their existing linguistic and developmental resources.

Parental Expectations and Competing Understandings of Learning

The findings show that some parents prioritised visible evidence of reading, writing, counting and school readiness, viewing play as time without sufficient academic progress. Others worried that outdoor activities would leave children dirty. These expectations sometimes prompted teachers to adopt more direct or time-efficient methods. This pattern accords with research showing that play may be regarded as recreation rather than meaningful learning (Bodrova & Leong, 2015; Ho, 2015). Borg (2003) theory of teacher cognition helps explain the finding: teachers make decisions within social environments, where parental expectations can influence instructional priorities. The tension therefore extends beyond teaching techniques to competing views of learning and evidence of school readiness. Schools should explain how purposeful play supports literacy, numeracy, language, problem-solving and social development, and make learning visible through examples of activities and progress. Such communication could foster a shared understanding of PBL while respecting parents' legitimate concern for children's educational development.

The findings also show that parental expectations shape teachers' thinking. Teachers work within a social context where parents' expectations of school readiness can influence evaluations of instructional decisions. When the educational value of play remains poorly understood, teachers may face tension between developmentally appropriate teaching and demands for visible academic performance.

Addressing this tension requires more than instructing teachers to use PBL. Schools must explain how play supports literacy, numeracy, language, problem-solving and social development. Clear communication can help parents understand how purposeful play contributes to educational outcomes while recognising their legitimate interest in children's progress.

Teacher Motivation and the Role of School Leadership

The findings indicate that school leadership shaped teacher motivation through the support or discouragement it provided. Some participants reported that headteachers regarded play as disorderly or failed to recognise their efforts; others described supportive leadership. This variation suggests that leadership can constrain or enable PBL, rather than exerting a uniform influence across schools. The finding supports Borg's (2003) argument that contextual conditions, alongside teachers' knowledge and beliefs, shape teaching practices. Teachers who value PBL may nevertheless reduce its use when schools treat play as disruptive or incompatible with formal education. By contrast, leaders who understand its pedagogical purpose can legitimise teachers' efforts and foster conditions for implementation. Leadership development should therefore accompany teacher training. Headteachers need opportunities to understand play-based pedagogy, observe its learning purposes and provide constructive supervision. Institutional recognition and practical support should form part of implementation, rather than remain optional additions to individual motivation. This finding also reflects Borg's (2003) emphasis on the contextual influences that shape teaching practices. School environments can either encourage experimentation and child-centred teaching or reinforce restrictive instructional expectations, thereby shaping teachers' beliefs about play.

The variation between supportive and unsupportive head teachers is particularly important. It indicates that leadership does not necessarily operate as a uniform constraint. Where leaders recognise the pedagogical value of play, teachers may receive encouragement and professional recognition. Where leaders dismiss play, teachers may feel compelled to reduce its use. Accordingly, strengthening PBL requires leadership development alongside teacher training. Head teachers need to understand pre-primary pedagogy and have practical ways to support its implementation, monitor classroom activities, and recognise teachers' efforts.

An Integrated Interpretation of the Constraints

Taken together, the findings show that the seven challenges form an interacting system. Inadequate infrastructure and materials limit available activities; overcrowding increases supervision demands; limited professional development restricts teachers' ability to adapt activities; linguistic and developmental diversity requires greater flexibility; and parental expectations or unsupportive leadership can deter play. This pattern supports the article's wider evidence that curriculum aspirations do not automatically translate into classroom practice (Kejo, 2017; Mahadew & Amin, 2025; Nampijja et al., 2024).

The three theoretical perspectives illuminate distinct aspects of this process. Piaget highlights the material conditions required for active exploration, Vygotsky the social and linguistic conditions for learning, and Borg the knowledge, beliefs and contextual pressures that shape teachers' decisions (Borg, 2003; Piaget, 1962; Vygotsky, 1978). Together, these perspectives frame PBL as a pedagogical process that depends on both teacher agency and enabling conditions. The study's main contribution is to show why isolated interventions may prove insufficient in the selected public pre-primary units in Lushoto and Handeni. Providing materials alone may have limited impact without training and safe spaces; training may have

limited impact if classes remain unmanageable or leaders discourage play. Policy and practice should therefore coordinate infrastructure, resources, staffing, professional learning, inclusive strategies, leadership and parent engagement.

This interaction constitutes the article's principal analytical contribution. It shows that isolated interventions cannot effectively resolve implementation difficulties. Providing materials alone may have limited impact if teachers lack training in their pedagogical use or sufficient space to organise activities. Similarly, professional development may offer little practical value if class sizes remain unmanageable and school leaders discourage play.

The evidence therefore supports a coordinated approach that integrates material provision, teacher development, classroom organisation, school leadership and parental engagement. This approach recognises teachers not merely as policy implementers but as professionals whose capacity to act depends on the institutional conditions in which they work.

Limitations and Directions for Future Research

This qualitative case study of selected public pre-primary units in Lushoto and Handeni District Councils, Tanga Region, provides contextual insight into teachers' experiences but cannot establish how widespread the challenges are across Tanzania. It focused on teachers and head teachers through interviews and observations; future research could include parents, local education officials, and children to examine how stakeholders interpret and shape play-based pedagogy. Comparisons across public and private schools with different resources, alongside mixed-methods research involving larger samples, could clarify how staffing and infrastructure affect implementation and classroom practice.

CONCLUSION AND RECOMMENDATIONS

This study examined barriers to play-based learning in public pre-primary units in Tanzania's Tanga Region, including inadequate infrastructure and materials, limited professional development, large classes, children's diverse ages and linguistic backgrounds, parental expectations, and low teacher motivation. These challenges are interconnected: poor facilities restrict activities, overcrowding limits supervision and individual attention, insufficient training hinders teaching improvements, and conflicting expectations from parents and school leaders may weaken teachers' commitment. Effective implementation requires teachers' willingness and competence, alongside the material, professional, and organisational support needed for child-centred teaching. The study recommends strengthening teacher training, improving learning environments and resources, and engaging parents and school leaders to support play-based learning.

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