

Reimagining Mixed Play Areas through Photo-Elicitation: A Visual Inquiry into Play-Based Pedagogy in Ghanaian Kindergarten classrooms

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Abstract: *This paper reimagines mixed-play pedagogy as a culturally grounded form of contextualized scaffolding within Ghanaian early childhood classrooms. Drawing on a visual qualitative case study that used photo-elicitation and classroom observation, the study explored how three preschool teachers in Accra design and facilitate play-based learning amid material scarcity and curricular expectations. Guided by sociocultural theory and enriched through culturally sustaining pedagogy, the research conceptualizes mixed play areas not merely as physical spaces but as socio-pedagogical ecologies where children, teachers, and materials co-construct meaning. Findings reveal that teachers enact scaffolding through improvisation, peer collaboration and integration of local materials; transforming play into a vehicle for cognitive, social, and cultural learning. These adaptive strategies reflect teacher agency and a responsive pedagogy rooted in local realities. The study advances the construct of contextualized scaffolding, conceptualized as a collective, culturally embedded and resource-sensitive process that redefines quality learning in the Global South. It argues that effective play-based learning emerges not from imported models or abundant resources but from teachers' capacity to mediate knowledge through culturally resonant practices. The paper contributes to early childhood education discourse by theorizing a localized model of play facilitation that foregrounds equity, inclusion, and pedagogical creativity in resource-limited contexts.*

KEYWORDS: mixed-play pedagogy, photo-elicitation, contextualized scaffolding, Ghana, teacher agency, play-based learning

INTRODUCTION

“Play is the work of the child.” — Maria Montessori

Play remains a universal language of childhood and a central pillar of early learning. It enables children to explore their world, express curiosity, and construct meaning through active engagement. Scholars have long emphasized that play is not a diversion from learning but its most authentic form; one that nurtures creativity, critical thinking and socio-emotional development (Ashiabi, 2007; Wood, 2014). When thoughtfully guided by teachers, play becomes a dynamic pedagogical process that bridges imagination and understanding, positioning the child as an active participant in meaning-making.

In Ghana, the national Kindergarten Curriculum developed by the National Council for Curriculum and Assessment (NaCCA, 2019) identifies play as the foundation of early childhood education,

emphasizing mixed play areas that integrate physical, cognitive, and social learning. Yet, the translation of these ideals into classroom practice remains uneven. Many kindergartens face challenges such as inadequate materials, overcrowded classrooms and limited teacher training in play-based pedagogy (Adu-Gyamfi & Amponsah, 2020; Osei-Poku & Owusu, 2020). These constraints compel teachers to adapt creatively, using available resources and local materials to design meaningful learning experiences for young children. Teachers frequently adapt and improvise to create meaningful play experiences from limited resources. Such improvisation, while innovative, also highlights deeper tensions between curriculum aspirations and everyday realities.

Teachers thus operate as cultural mediators, navigating between the expectations of the curriculum and the lived experiences of learners (Vygotsky, 1978; Bruner, 1983). Understanding these negotiated practices requires research that captures both the material and relational dimensions of teaching and learning; an approach that moves beyond textual accounts to include the visual and spatial.

This study therefore adopted a visual research design using photo-elicitation to explore how mixed play areas are designed, facilitated and experienced in Ghanaian early childhood classrooms. Photographs captured from an observation of classroom and outdoor environments were used as visual data and as prompts for reflective discussions with teachers during interview sessions. The study was guided by the following objectives:

1. To explore the kinds of mixed-play items available in preschool contexts in Accra.
2. To find out the roles teachers play to engage learners during mixed-play activities in preschool settings in Accra.
3. To explore the challenges associated with the effective use of mixed-play areas in preschool settings in Accra.

These objectives were addressed through these three research questions:

1. How do mixed-play items manifest within the preschool contexts of the participating schools?
2. In what ways do teachers engage and facilitate learners' participation during mixed-play activities in preschool settings?
3. How do teachers describe and navigate the challenges associated with using mixed-play areas effectively in preschool classrooms?

By situating these questions within Ghana's evolving early childhood education landscape, this study illuminates how teachers interpret and enact play-based pedagogy in resource-constrained contexts. Through its visual inquiry approach, the research reveals how mixed play areas; both as physical spaces and as pedagogical constructs; mediate children's participation, creativity, and learning in culturally meaningful ways.

THEORETICAL UNDERPINNING

The present study is anchored in sociocultural theory (Vygotsky, 1978) and extends its pedagogical implications through a contextualized model of scaffolding that reflects the realities of Ghanaian early childhood classrooms. Together, these perspectives provide an interpretive lens for understanding how teachers, children, and material environments interact within mixed play spaces to co-construct learning.

Sociocultural Perspectives on Learning and Play

Sociocultural theory emphasizes that learning is a socially mediated process that occurs through interaction with others and with the cultural tools available in one's environment. According to Vygotsky (1978), children's development progresses within the Zone of Proximal Development (ZPD); the space between what a learner can achieve independently and what can be achieved with the guidance of a More Knowledgeable Other (MKO). Through dialogue, modelling and participation in shared activities, the MKO supports learners' transition from dependence to autonomy. Language, culture and social relationships thus become essential mediators of thought and meaning-making (Wertsch, 1991; Daniels, 2001).

Applied to early childhood settings, the sociocultural view situates play not as a spontaneous pastime but as a cultural and cognitive activity through which children internalize knowledge, values, and problem-solving strategies (Bruner, 1983). Play becomes the medium through which children engage with their world and through which teachers guide learning, often subtly, by participating, questioning, and modeling. This dialogic engagement transforms both the child and the context, underscoring that teaching and learning are mutually constitutive acts rather than one-way transactions.

Scaffolding as Mediation in Play-Based Contexts

Building on Vygotsky's ideas, Bruner and colleagues coined the term scaffolding to describe the supportive structures that enable learners to perform tasks they could not accomplish alone (Wood, Bruner, & Ross, 1976). Scaffolding involves modelling, feedback, and the gradual withdrawal of support as learners gain competence. In early childhood classrooms, this process unfolds naturally through play when teachers provide subtle guidance—posing questions, introducing materials, or extending children's ideas—to sustain engagement and deepen understanding (Hammond & Gibbons, 2005).

However, while foundational scaffolding theories have provided a powerful model for responsive teaching, their Western, individualistic assumptions limit their applicability in collective and resource-constrained contexts (Waghid, 2018). The traditional expert–novice dyad, for instance, may not fully capture the distributed and communal nature of learning in African societies, where knowledge is often co-constructed through group participation and interdependence. Moreover, material scarcity in many kindergartens classrooms in Ghana necessitates improvisation and creative use of local resources as part of the scaffolding process; an adaptation often overlooked in universalist conceptions of pedagogy.

Contextualized Scaffolding: A Ghanaian Perspective

To address these limitations, this study conceptualizes contextualized scaffolding as a locally responsive adaptation of sociocultural learning theory. In this model, scaffolding is viewed not solely as teacher-led guidance but as a collective, culturally embedded and materially mediated process. Teachers, children, peers, and physical artifacts such as recycled materials, natural objects, and traditional play items jointly construct learning experiences. This approach recognizes the interplay between teacher agency, cultural capital, and environmental adaptation, reflecting a uniquely Ghanaian mode of facilitating learning through play.

Within mixed play areas, contextualized scaffolding manifests in several ways. Teachers improvise using locally available items (bottle tops, sticks, stones) as learning materials, transforming everyday objects into pedagogical tools. They integrate storytelling, songs, and local games as cognitive

supports that link familiar cultural experiences to curricular concepts. Peer interactions also serve as informal scaffolds, where children assist one another in problem-solving and creative exploration. These practices align with Vygotsky's assertion that learning is fundamentally social but extend it to acknowledge the cultural and ecological specificities of Ghanaian early childhood education (Moll et al., 1992; García & Wei, 2014).

Contextualized scaffolding thus reframes the teacher's role from transmitter of knowledge to facilitator of shared meaning-making within local realities. It underscores the belief that effective play-based pedagogy arises not merely from adherence to curriculum prescriptions but from teachers' capacity to interpret, mediate, and transform those prescriptions through culturally resonant practices. This conceptual lens guides the present study's interpretation of how mixed play areas function as both pedagogical and sociocultural spaces, revealing the dynamic interplay between environment, facilitation, and learner participation.

Culturally Sustaining Pedagogy and Decolonial Play

While contextualized scaffolding explains how teachers adapt learning to local realities, it requires expansion to account for the cultural and political dimensions of pedagogy in postcolonial contexts. Building on Ladson-Billings' (1995) Culturally Relevant Pedagogy and Paris & Alim's (2017) Culturally Sustaining Pedagogy, this study situates mixed-play facilitation within a broader framework of cultural continuity and epistemic inclusion. These perspectives assert that teaching must not only recognize but actively sustain learners' linguistic and cultural repertoires. In Ghanaian kindergartens, where formal curricula often reflect Western developmental models, culturally sustaining play provides a means of re-centering local games, songs, and materials as valid pedagogical tools.

In this regard, mixed-play pedagogy becomes a site of decolonial practice. By transforming everyday objects like stones, bottle caps, wooden blocks into learning mediators, teachers enact what Tuhiwai Smith (2012) describes as the "reclaiming of local epistemologies." Such acts of improvisation challenge the assumption that pedagogical quality depends on imported materials or standardized kits. Instead, they affirm play as a culturally responsive and socially just mode of learning; an approach that both reflects and sustains Ghanaian childhoods.

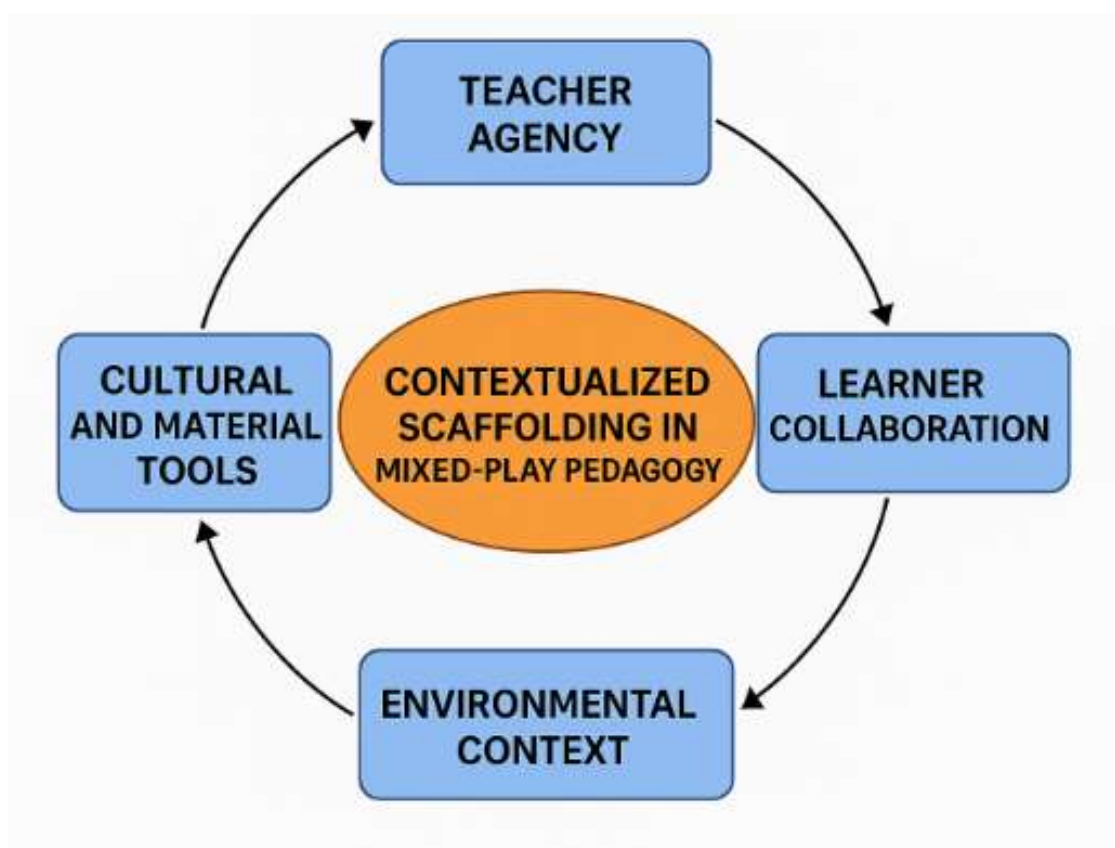


Figure 1: Contextualized Scaffolding in Mixed-Play Pedagogy

This conceptual model illustrates contextualized scaffolding as an interactive system comprising four interdependent elements:

1. Teacher Agency – the creative, adaptive actions teachers take to mediate learning;
2. Cultural and Material Tools – local artifacts, songs and games used as mediating devices;
3. Learner Collaboration – peer interactions and co-construction of meaning; and
4. Environmental Context – spatial, social and resource realities shaping pedagogy.

The model demonstrates how these elements intersect to sustain culturally relevant, resource-sensitive learning within mixed-play areas, producing a cycle of creativity, reflection, and adaptation.

METHODOLOGY

This study adopted a qualitative visual inquiry design situated within an interpretivist paradigm. The interpretivist orientation emphasizes understanding how individuals make meaning within their social and cultural contexts (Creswell & Poth, 2018). This approach was appropriate for exploring how Ghanaian preschool teachers engage with mixed-play areas as pedagogical and social spaces. The study specifically employed **photo-elicitation**, a visual research method that integrates photographs into interviews to evoke deeper reflections and more nuanced narratives (Harper, 2002). Visual methods such as this are particularly valuable in early childhood research because they capture the material, emotional and spatial dimensions of classroom practice that might otherwise remain invisible in purely verbal accounts (Clark, 2011; Pink, 2013).

Context and Participants

The study was conducted in three preschools within the Ga South Municipality of Ghana's Greater Accra Region. The area is characterized by its cultural and linguistic diversity, where children from multiple ethnic backgrounds and varied home languages converge in the same classroom environments. These schools were purposively selected because they implemented mixed-play areas as part of their daily routines and were accessible for longitudinal observation. Within these schools, three early childhood teachers (coded as *T1*, *T2*, and *T3*) participated in the study. Each teacher possessed at least a diploma qualification in Early Childhood Education and had a minimum of three years of classroom experience.

Data Generation

Data were generated through photo documentation, non-participant observation, **and** semi-structured interviews. In the first phase, classroom and outdoor play sessions were observed to identify the physical arrangement and use of mixed-play materials. Photographs were captured using a digital camera to document naturally occurring activities, focusing on the interplay between materials, teacher facilitation and children's engagement. In the second phase, these photographs were used as elicitation prompts in one-on-one interviews with teachers, encouraging them to interpret and reflect upon their practices. Photo-elicitation interviews help participants to move beyond descriptive accounts to deeper interpretive discussions about their intentions, challenges, and contextual realities (Prosser & Loxley, 2008; Rose, 2016).

Interviews were audio-recorded and transcribed verbatim. Field notes and contextual memos complemented the data, capturing situational dynamics and researcher reflections. Altogether, the integration of visual and verbal data created a layered, dialogic account of how mixed-play activities unfold in everyday preschool settings.

Data Analysis

The data; comprising interview transcripts, field notes, and photographs; were analyzed thematically following Braun and Clarke's (2013) six-phase framework for qualitative analysis. This involved familiarization with the data, generating initial codes, searching for patterns, reviewing and defining themes and constructing analytic narratives supported by illustrative photographs. Photographs were not analyzed as isolated images but as *co-texts*-visual evidence that deepened interpretation of the verbal data (Rose, 2016). Three themes emerged, aligned with the research questions: (1) manifestations of mixed-play elements in preschool settings, (2) teachers' facilitation and engagement in mixed-play activities, and (3) challenges in the use of mixed-play areas.

Reflexivity and Ethics

Throughout the study, the researcher maintained a reflexive stance, recognizing her dual role as a teacher educator and researcher within the Ghanaian early childhood education system. Reflexivity was achieved through analytic journaling and memo writing to monitor personal assumptions and positional influences (Finlay, 2002). Ethical clearance was obtained from the relevant educational authorities and informed consent was secured from all participants. Photographs were taken with institutional approval and edited to ensure anonymity of children and teachers. Pseudonyms were used for schools and participants to maintain confidentiality, consistent with ethical protocols for visual research involving children (Clark, 2011; Wiles et al., 2008).

By employing photo-elicitation within a socio-culturally grounded qualitative framework, the study illuminated the lived experiences of teachers as they mediated learning through mixed play. This approach not only foregrounded teachers' voices but also emphasized the interdependence of material context, pedagogical creativity, and curriculum interpretation in Ghanaian early childhood classrooms.

Researcher Positionality

As teacher educators and researchers within Ghana's early childhood education system, we approached this study with an insider's understanding of the pedagogical realities teachers face. Our professional experiences offered access and empathy but also required reflexivity to prevent over-identification. Through analytic journaling and critical dialogue with co-researchers, we sought to balance familiarity with analytic distance. This positional awareness shaped the interpretation of teachers' adaptive strategies not as deficit-based improvisation but as intentional, culturally embedded acts of pedagogy. Recognizing our positionality thus strengthened both the ethical integrity and interpretive credibility of this study.

FINDINGS

The study explored how teachers in Ghanaian preschools conceptualize and implement mixed-play areas as part of early childhood learning. Using photo-elicitation and semi-structured interviews, three interrelated themes emerged: (1) manifestations of mixed-play elements in preschool contexts, (2) teachers' facilitation and engagement in mixed-play activities and (3) challenges in the effective use of mixed-play areas. These themes are discussed below with illustrative excerpts and photographs from the participating schools.

Observation findings

The observational data offered rich insights into how teachers organized, utilized, and interacted within mixed-play areas. Photographs taken during classroom and outdoor sessions revealed the dynamic relationship between environment, materials, and facilitation. Across all three schools, teachers had intentionally structured play zones that reflected both curriculum goals and contextual realities.

Theme 1: Manifestations of mixed-play elements in preschool contexts (Classroom Arrangement and Resource Improvisation)

In all observed settings, classrooms were divided into identifiable learning centers including blocks, home corner, art table, numeracy corner, outdoor exploration areas, etc. Materials within these spaces were primarily locally sourced or repurposed, underscoring teachers' creativity in managing limited resources. Items such as bottle tops, empty tins, cardboard boxes, stones, and sticks were reimagined as numeracy and sorting tools. This finding illustrates how material improvisation functioned as a pedagogical strategy and a reflection of contextualized scaffolding. Teachers transformed ordinary, familiar materials into mediational tools that connected children's home experiences to curriculum learning tasks. Below are some observation photos of a mixed-play areas in the three classrooms taken by the researchers.

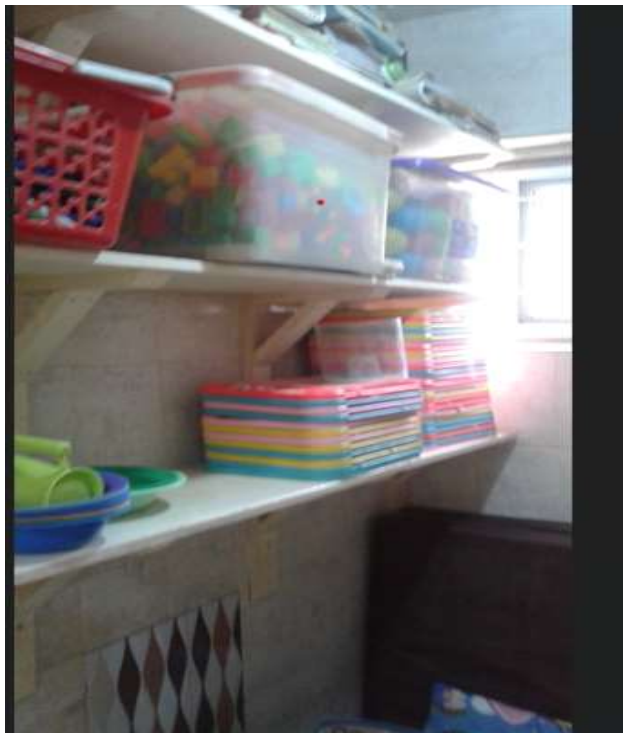




Photo 1: Classroom mixed-play area with recycled containers, bottle tops, and wooden blocks used for counting and sorting.

Theme 2: Teachers' facilitation routines and learner engagement in mixed-play activities

Two sub themes emerged on this theme.

2a) Integration of Play into facilitation Routines

Observation notes showed that mixed-play activities were not treated as isolated events but as integral components of the daily learning routine. Teachers initiated play sessions at the beginning of lessons to introduce new concepts or during transitions to reinforce earlier content. For instance, in one class, children used colored bottle tops to create number patterns after a numeracy lesson. Also, during outdoor sessions, teachers facilitated **guided play** through questions and demonstrations, helping learners relate play experiences to conceptual understanding. It was also observed during indoor group activities that, some of the facilitators *guided learners during a ring-tower stacking activity, encouraging counting, color identification and comparison* This pattern aligns with Vygotsky's (1978) notion that learning occurs most effectively within social interaction and shared activity.

These instances revealed that play-based learning was intentionally structured to promote cooperative exploration, blending free and guided play. Teachers balanced direction with autonomy, ensuring that children had both freedom to explore and structured support for concept development.



Photo 2a: Teacher guiding learners during a ring-tower stacking activity, encouraging counting, color identification and comparison.

2b) Learner Engagement and Peer Collaboration

Observation data revealed high levels of peer collaboration and engagement in all mixed-play sessions. Children were seen helping one another, negotiating turns and collectively building structures or arranging patterns. Teachers in a subtle way facilitated these interactions by rotating materials, posing open-ended or guiding questions and affirming cooperative behaviours. In one notable scene in one of the classrooms, a group of children used bottle caps and blocks to form a bridge-like structure while discussing who would “cross first.” Their conversation mirrored problem-solving, imagination and early engineering reasoning which is an evidence of cognitive and social development through play. Such peer-mediated activities align with social constructivist perspectives (Bruner, 1983; Rogoff, 1990), which emphasize that children internalize concepts through shared activity and dialogue.



Photo 2b: Children collaborating to build with blocks and bottle tops, demonstrating problem-solving and negotiation during play.

Theme 3: Challenges in the effective use of mixed-play areas

Despite teachers' innovation, several challenges were evident. The most recurrent issue observed was **overcrowding** in play corners, leading to limited access to materials and reduced teacher-child interaction time. Play corners often served more than 20 children at once, making individualized scaffolding difficult. Some materials appeared worn or insufficient for group work. This finding confirms the persistent gap between curriculum ideals and resource realities, a challenge similarly noted in Ghanaian early childhood research (Adu-Gyamfi & Amponsah, 2020; Osei-Poku & Owusu, 2020). An excerpt from the observation process indicated that, during free-play rotation, due to the issue of limited mixed-play items, about ten children shared one box of wooden blocks while others waited. The teacher encouraged turn-taking but could not monitor all groups simultaneously.





Photo 3: Overcrowded play corner during sorting activity - children waiting for their turn due to limited materials

In sum, the observational data thus portray mixed-play environments as vibrant but constrained pedagogical spaces. Teachers demonstrated agency and improvisation in organizing culturally relevant play activities despite systemic limitations. The use of local materials, integration of play into daily routines, and child collaboration all point to the embodiment of contextualized scaffolding, where learning emerges through interaction among teachers, children, and materials.

Interview Findings

The photo-elicitation interviews offered deeper insight into teachers' lived experiences and perceptions of mixed-play pedagogy. The reflective discussions, anchored around the researcher-generated photographs, revealed how teachers interpreted, facilitated, and negotiated the realities of play-based learning within their classrooms. Three dominant themes emerged, corresponding with the research questions: teachers' understanding of mixed-play elements, their facilitation roles, and the challenges constraining effective implementation.

Theme1: Teachers' Understanding of Mixed-Play Pedagogy

Teachers described mixed-play pedagogy as an essential avenue for nurturing children's creativity, problem-solving, and fine motor coordination. Their reflections revealed that play materials such as *play dough, zipping, lacing boards, ring towers, balls, and Lego* were particularly engaging to children. These activities encouraged exploration, experimentation, and hands-on learning.

"For example, the zipping helps them zip their own bags... so the children are so interested in the zipping." (T1)

"The play dough, the balls, and the ring tower... help them to differentiate between bigger numbers and colours." (T2)

"Some use Lego, others the tower and the rod... the bouncing ball occupies them and makes them happy." (T3)

These accounts resonate with the sociocultural conception of learning as an active, mediated process (Vygotsky, 1978; Bruner, 1983). Teachers recognized that children's attraction to familiar, tactile

materials enhanced motivation and engagement, aligning with the idea that play is both cognitive and cultural.

Teachers also associated materials with the development of fine motor and creative skills. One teacher explained:

“The zipping... helps them grip the pencil and crayon very well. If you don’t hold the zip the right way, you can’t hold the pencil well. So through zipping, it helps the child grip well and also be responsible.” (T2)

Another reflected:

“When materials are displayed, the child will think critically about what to use them for... the child becomes more creative.” (T1)

These reflections show that teachers not only valued play for its entertainment but also saw it as an intentional pedagogical tool that builds autonomy, problem-solving, and coordination.

Theme 2: Teachers’ Facilitation and learners’ Engagement in Mixed-Play Activities

Teachers viewed their roles as facilitators, guides, and co-learners who mediate learning experiences through participation, modelling, and rule-setting. Their accounts revealed a deliberate effort to maintain balance between child autonomy and instructional guidance.

“Yes, I play a role... you need to assist them or practice it for them to see—‘this is how the zip has to be.’ You demonstrate first.” (T2)

“Even though they are playing, you need to watch and guide them... children may misbehave, so I set rules. If you misbehave, I take the play item away. That way they learn to be disciplined.” (T1)

“Some children can do it by themselves, but others need demonstration... they see before they learn.” (T3)

These statements emphasize active facilitation rather than passive supervision. Teachers took on roles as *demonstrators, motivators, and mediators*, ensuring that children remained focused while exercising choice. This aligns with Bruner’s (1983) notion of scaffolding, where teachers provide structured support that gradually fades as learners gain mastery.

Teachers also expressed commitment to inclusivity and diversity in play choices:

“We have different materials... everyone has their interest. If you don’t like pegging, maybe you like the rings or balls. Each child finds something.” (T2)

“Sometimes encouragement helps... I talk to the child and explain the benefits of the activity or promise a reward. It motivates them.” (T1)

These approaches reflect *culturally responsive pedagogy* (Ladson-Billings, 1995), recognizing learners’ diverse preferences and promoting emotional connection through encouragement and shared participation.

Theme 3: Challenges in the Use of Mixed-Play Areas

Despite their commitment, teachers identified multiple structural and pedagogical challenges that constrained their facilitation of mixed-play activities. Key issues included material scarcity, overcrowding, maintenance difficulties, and varying learner engagement.

“When you paste the objects on the wall, they feel like removing them... and some children don’t like any of the play items, though we have many. It’s time-consuming trying to engage each one.” (T2)

“Sometimes when your eyes are not really on them, they spoil the things... and getting them replaced is difficult. If a material is spoiled, it delays teaching.” (T1)

“When you paste the things... the children will remove them. Maybe you want to teach numbers 1–5, but 5 is gone, so you must make a new one again.” (T3)

These excerpts reveal that teachers continually negotiate between ideal pedagogical intentions and systemic realities. Limited funding, large class sizes, and insufficient materials hinder sustained engagement. Yet, teachers often compensate through creativity; using outdoor natural materials or rotating small groups to ensure participation.

In summary, the interview findings underscore that teachers perceive mixed-play pedagogy as both meaningful and challenging. Teachers recognize play as essential to holistic child development but are continually challenged to adapt their practices amid resource and logistical limitations. Their reflections affirm the centrality of teacher agency and contextualized scaffolding; where educators improvise, model and mediate within their unique social and material realities.

DISCUSSION OF FINDINGS

The findings of this study reveal that Ghanaian preschool teachers enact mixed-play pedagogy as a dynamic, context-responsive process rather than a fixed instructional routine. The interplay between teachers, learners, and materials demonstrates that effective facilitation in early childhood classrooms depends not merely on resource availability, but on the teachers' capacity to adapt, improvise and scaffold learning within their sociocultural realities. This aligns closely with the construct of contextualized scaffolding proposed in this study; where teaching and learning emerge through reciprocal engagement with the environment, culture, and community.

Reinterpreting Scaffolding through Contextual Realities

In contrast to traditional interpretations of scaffolding as a hierarchical expert–novice model (Wood, Bruner, & Ross, 1976), the data suggest that teachers in Ghanaian preschools operate within a distributed scaffolding framework, where guidance is shared among teachers, peers, and material artefacts. Through improvisation with locally available resources such as bottle tops, sticks, and play dough, teachers extend learning opportunities beyond textbook-based instruction. These adaptive practices embody what Vygotsky (1978) termed the Zone of Proximal Development (ZPD) but situate it within the material constraints and cultural textures of the Ghanaian preschool environment.

For instance, the teachers' reliance on everyday materials demonstrates that cognitive development can be effectively mediated through familiar and culturally resonant objects. This finding supports Moll et al.'s (1992) notion of funds of knowledge, where children's home experiences and community tools become legitimate resources for school learning. In these contexts, scaffolding is not simply about simplifying complex tasks; it is about connecting learning to lived experience.

Further, this reaffirms that scaffolding in the Global South cannot be interpreted solely through universalist frameworks. Rather, it must be understood through contextualized scaffolding—a process in which teachers, children, and materials dynamically interact to produce learning that is socially meaningful. In this view, learning does not occur in spite of material scarcity but because of the creative mediation that scarcity provokes. The interplay of teacher improvisation, child collaboration, and environmental constraint constitutes a uniquely local mode of learning design that transforms play into a medium of cultural continuity.

Teacher Agency and Cultural Responsiveness

The study also highlights the critical role of teacher agency in transforming policy ideals into actionable pedagogies. While Ghana's Kindergarten Curriculum (NaCCA, 2019) emphasizes play as the foundation of early learning, its practical enactment depends largely on how teachers interpret and implement it within local realities. Teachers in this study demonstrated professional creativity by

blending guided play with structured routines, ensuring that children's learning was meaningful even in resource-limited settings.

Their active engagement mirrors Bruner's (1983) argument that learning is sustained through a spiral of discovery where teachers and learners continually co-construct meaning through interaction. Teachers who modelled, questioned and joined in play effectively mediated between curriculum goals and child curiosity. This aligns with contemporary research asserting that the success of play-based learning depends more on teacher intentionality and culture than on material abundance (Ashiabi, 2007; Adu-Gyamfi & Amponsah, 2020; Yeboah, 2024).

Furthermore, teachers' narratives of inclusivity (providing varied play materials to meet diverse interests) reflect the principles of culturally responsive pedagogy (Ladson-Billings, 1995). In multicultural preschool classrooms, teachers consciously leveraged children's linguistic and cultural diversity as pedagogical resources. This responsiveness situates Ghanaian early childhood educators not merely as implementers of curriculum, but as cultural mediators who translate abstract policy into lived practice through localized adaptation.

Also, teachers' facilitation roles including; modeling, guiding and co-participating in play demonstrate a deeper form of agency that aligns with Ladson-Billings' (1995) conception of culturally relevant pedagogy and Paris & Alim's (2017) culturally sustaining pedagogy. By integrating indigenous materials, local songs, and oral narratives into learning centers, teachers are not merely responding to scarcity; they are sustaining children's cultural worlds within the classroom.

This interpretation moves teacher improvisation from a survivalist act to a politically meaningful form of pedagogical agency. It challenges the hidden hierarchy in global ECE discourse that equates quality with Western materials or pedagogical scripts. Instead, these Ghanaian teachers model what decolonial scholars (Tuhiwai Smith, 2012; Waghid, 2018) describe as epistemic reclamation; a process of teaching that revalidates indigenous knowledge as a foundation for cognitive and social growth. Their practices reposition the teacher not as a passive implementer of curriculum but as an agent of cultural continuity and epistemic justice.

Negotiating Constraints and Creativity

Despite their commitment to play-based learning, teachers navigated significant constraints including large class sizes, inadequate materials and limited maintenance support. These conditions often forced them to balance pedagogical ideals with pragmatic improvisation. However, rather than diminishing the quality of learning, these limitations appeared to stimulate creative problem-solving. Teachers developed flexible strategies such as rotating play groups, integrating outdoor natural materials and repurposing household objects as instructional tools. These acts of improvisation reinforce the concept of contextualized scaffolding as a form of pedagogical resilience. Teachers' creativity became a counter-narrative to deficit perspectives on under-resourced classrooms. In doing so, they challenged the notion that quality early education depends solely on imported materials or Western play models (Waghid, 2018). Instead, their actions demonstrate that pedagogical quality is embedded in the relational and cultural capacity to make learning meaningful within one's context.

Notably, while material scarcity, overcrowding, and inadequate training were significant constraints, teachers' capacity to improvise became a counter-narrative of resilience. Their reimagining of discarded materials as pedagogical tools transforms scarcity into an engine of innovation. This creative

adaptation aligns with Freire's (1970) notion of praxis—the reflection and action upon one's world to transform it. Each act of repurposing, reorganizing, or reconstructing mixed-play environments represents both a pedagogical and political gesture of resistance against deficit assumptions about African classrooms.

In this light, creativity becomes a decolonial resource—a means through which teachers assert ownership over their pedagogy and reclaim the authority to define what quality learning looks like within their cultural and material contexts. The classroom thus emerges as a site of both cognitive and socio-political reconstruction.

Theoretical Contribution: Extending the Discourse on Play-Based Pedagogy in Ghana

This study contributes to early childhood education theory by reframing play-based pedagogy through a Southern lens of contextualized scaffolding. It extends Vygotsky's sociocultural theory by embedding it within cultural and ecological realities, revealing that scaffolding operates as a collective process mediated by environment, culture, and teacher agency rather than as an individualized cognitive event. By theorizing contextualized scaffolding, this research bridges the conceptual divide between global play pedagogies and local Ghanaian practice. It offers a model where play becomes a form of cultural negotiation; simultaneously sustaining tradition and enabling innovation. In doing so, it asserts that educational quality and equity in the Global South must be measured not by material equivalence with the Global North but by the extent to which pedagogy is responsive, creative, and culturally sustaining.

This study further contributes to the growing body of Ghanaian scholarship that seeks to localize play-based pedagogy within the nation's socio-educational realities (Osei-Poku & Owusu, 2020; Dzamesi et al., 2025). It extends the discourse by offering an empirically grounded model (contextualized scaffolding) that redefines play facilitation as a collective and adaptive process rather than a unidirectional form of instruction. Through this lens, play emerges as a culturally mediated practice shaped by the interplay of teacher agency, environmental adaptation, and learner participation.

The findings also hold broader implications for curriculum implementation and teacher education. They underscore the need for context-sensitive professional development, enabling teachers to design and evaluate play activities using locally relevant resources and reflective practices. Supporting teachers' ability to think critically about their environment, materials, and learners will be crucial for sustaining meaningful, equitable, and inclusive early childhood education in Ghana and similar contexts across the Global South.

IMPLICATIONS AND RECOMMENDATIONS

This study's findings extend beyond early childhood pedagogy to broader educational equity and policy reform. Three key implications emerge:

1. Policy and Curriculum Reform:

The findings highlight the need for Ghana's early childhood policies, particularly the NaCCA Kindergarten Curriculum to explicitly integrate contextualized scaffolding principles. Curriculum guidelines should encourage the adaptation of indigenous materials and community resources, emphasizing play as a culturally embedded and sustainable practice rather than a Western import.

2. Teacher Professional Development:

Teacher education institutions and in-service programs should foreground culturally sustaining pedagogy, equipping educators to reflect critically on their contexts and to design learning activities

that draw from local culture, language, and community participation. This orientation transforms teachers into cultural mediators and co-creators of curriculum, not mere implementers.

3. Theoretical and Global Relevance:

The concept of contextualized scaffolding offers a locally grounded theoretical model that contributes to global discourses on play-based learning in the Global South. It demonstrates that pedagogical quality is not contingent upon material abundance but upon the capacity of teachers to transform scarcity into opportunity through creative mediation. Future research could extend this model to comparative contexts, exploring how cultural and ecological differences shape play pedagogy across Africa and beyond.

CONCLUSION

This study has reimagined mixed-play pedagogy in Ghanaian early childhood classrooms as a culturally embedded form of contextualized scaffolding. By integrating photo-elicitation with classroom observations, it revealed how teachers, children, and materials co-construct learning environments that transcend material limitations. These practices challenge the assumption that effective play-based learning depends on standardized resources or imported pedagogical models. Instead, they illustrate that pedagogical quality is a relational, context-dependent construct shaped by creativity, cultural continuity, and teacher agency.

Through this lens, mixed play emerges not merely as a method of engagement but as a transformative site of learning where play, culture, and community intersect. The study thus positions Ghanaian teachers as intellectual agents who reinterpret global educational ideals through locally grounded practices demonstrating that the power of play lies not in its form, but in its capacity to connect knowledge with lived experience.

FUTURE DIRECTIONS AND FINAL REFLECTION

Future research should explore how contextualized scaffolding operates across diverse cultural and linguistic settings within Africa and beyond. Comparative studies could illuminate how teachers in different socio-economic contexts negotiate the tension between global curricular standards and local knowledge systems. Methodologically, integrating participatory visual approaches such as video ethnography or child-led photography could deepen understanding of how children themselves perceive and shape mixed-play experiences.

Ultimately, this study argues that the future of early childhood education in the Global South depends not on replicating imported pedagogical blueprints, but on recognizing the classroom as a living cultural ecosystem. Within such ecosystems, teachers are not merely facilitators of play; they are architects of epistemic access and custodians of cultural continuity. Mixed play, therefore, becomes a microcosm of educational justice, a space where the everyday creativity of Ghanaian teachers reframes the meaning of quality education through context, culture, and care.

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