

Teachers' Perceptions of Outdoor Play on the Socio-Cognitive Development of Preschoolers in Lagos State

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Abstract

Outdoor play is important for every child. It is a crucial part of a child's existence and environment. This study explored preschool teachers' perspectives of outdoor play's effects on socio-cognitive development. Four research questions were used to guide the study and two hypotheses were formulated for the study. Descriptive survey research design was adopted for the study. Simple random sampling, 50 teachers from selected private and public nursery schools in Mainland LGA. A self-designed questionnaire titled; "Teachers Perceptions of Outdoor Play Questionnaire" (TP_OPQ) was used for the study. Cronbach Alpha reliability value of 0.88 indicates that the 25-item questionnaire is very reliable. The data gathered was analysed using frequency counts, mean scores, and a one-sample t-test with the help of the Statistical Package for the Social Scientists (SPSS 23.0). The results of this study indicate that engaging in outdoor play has significant impacts on the social (communication and self-efficacy skills) and cognitive (thinking and recalling abilities) development of preschoolers in Mainland LGA. Consequently, the study recommended that teachers and caregivers in nursery school should involve the children in outdoor play; while also ensuring they take appropriate safety measures and provide sufficient supervision. Furthermore, it is imperative that both public and private school administrators ensure the provision of sufficient and up-to-date outdoor play facilities in order to promote outdoor play among preschoolers attending nursery schools.

Keywords: Preschoolers, Nursery Schools, Teachers' Perceptions, Outdoor play, Social Skills Development, Cognitive Development

Introduction

During early life, the brain undergoes fast development, resulting in the multiplication of neurone circuits in the millions. It is essential during this period to appropriately develop and refine the child's cognitive, socio-emotional, and physical abilities. The acquired knowledge, vocabulary, and assimilated habits form the basis for future development. According to research conducted by the Canadian Council of Learning in 2010, it was found that the experiences a child has during their early years significantly impact their performance in the job and various other areas of a well-rounded and satisfying life. The developmental milestones of a preschooler encompass their physical, cognitive, and social growth, serving as a benchmark for the expected abilities of a child at a specific age. Development refers to the progressive increase in a child's capacity to engage in more complex tasks as they grow older (Charlesworth, 2012).

Development encompasses a child's capacity to acquire proficiency and command over physical actions, executing tasks with competence and ease. The development of preschoolers can be shaped by both hereditary factors and environmental influences. Additionally, it has been observed that children adapt to their surroundings through play. Play has been a crucial factor in promoting the growth and progress of preschool children. Academics have reached a consensus that play empowers children to actively explore their surroundings. Play is an essential means by which children express themselves. It is an engaging natural pastime that brings pleasure and offers experiential learning to children. Regrettably, certain adults are unaware of the crucial significance of play in the holistic development of children. Consequently, they perceive children's play as a futile use of time. Teachers and parents frequently view play as a respite or release from the process of acquiring knowledge. Play, in its true nature, serves as a valuable educational tool for children. Self-directed play stimulates a child's inquisitiveness, inventiveness, and innovation. These cognitive talents are like muscles that require exercise, as neglecting them might result in their decline (Nnaeme, Okoyeuzu, & Chuka, 2022).

Recent years have seen the rise of preschool in Nigeria. Early childhood education (ECE) helps working-class parents without relatives or house help care for their children while they work (Obiweluzor, 2015). Parent

and teacher schedule after-school sessions, homework, and tutorials, denying children time to play. Academic activities overwhelm preschoolers, hindering their growth. Instead of playing outside, children watch TV or play video games, which inhibit their socialisation. Children and teens become less active as screen time rises and schools limit playtime (Ertheo, 2019).

As education becomes more standardised and competitive, schools prioritise maths, reading, and science over physical activity, and playtime (Ertheo, 2019). In order to prepare their children for primary school, many Nigerian parents have made preschool highly intellectual. Importantly, many preschools expose their pupils to intellectual activities for older children to impress parents (Salami, 2016). Most importantly, denying children play is denying them their childhood. Most adults deny children childhood. Lack of communication or neighbourhood relations has raised safety concerns for youngsters, restricting outdoor play. Play teaches children community living and socio-cultural values in addition to development. Thus, this paper explores teachers' views on how outdoor play affects preschoolers' socio-cognitive development.

Famlii (2019) described play as childhood's primary learning and social activity. Play takes many shapes and stages. Bento and Dias (2017) stated that engaging in play is a spontaneously fascinating activity which encourages cognitive, emotional, physical, and social wellbeing, enabling children to grow and learn. Classical play scholar Parten (1932) identified six social stages of play from infancy to preoperational development. Parten lists unoccupied, isolated, observer, parallel, associative, and social/cooperative play as stages of play. Play can be motor-physical, productive, vocal, fantasy/dramatic, collaborative, or virtual/digital. Children's play time and type vary by gender, region, and socioeconomic level. Girls play nearer to home with relatives, whereas boys play farther away with friends, according to Brockman, Fox, and Russell (2011). Middle-class children are typically compelled to substitute play with academics or screen time, whereas low-income children must help in the household business (Lancy, 2012).

Outdoor education is older than 20 years. It involves applying theory in nature and outdoors (Bartunek *et. al.*, 2002). Museums, zoological parks,

flower gardens, aquatic parks, playgrounds, woodlands, and rivers can be used for learning (Elliott & Davis, 2008). Aristotle and Plato advocated outdoor schooling. Later scientists and philosophers including Basedow, Froebel, Locke, Pestalozzi, Rousseau, and Schelling advocated for children to spend time in nature. Research demonstrates that “direct, ongoing experiences of nature in relatively familiar settings remains a vital source for children's emotional, physical, and intellectual development”. Children's focus and cognition improve with proximity and everyday exposure to nature (Kellert, 2005).

Outdoor education broadens children's perspectives because of the vast world outdoors. Outdoor play places encourage child development through nature connection. However, children raised in artificial environments lack nature awareness and have a less active existence. Outdoor playgrounds can help children maximise their mental and physical growth by providing activities tailored to their age, development, interests, and needs (Öztürk, 2009).

Play is important for brain, body, and intelligence development in children. Studies show that children learn through play, experimenting, exploration, and discovery. Adventure, risk-taking, fine and gross motor development, and the acquisition of huge amounts of basic knowledge are best learnt through outdoor play, according to research (Johnson, Christie, & Wardle, 2010).

Moving besides, near, over, through, and under objects and persons helps children understand prepositions and arithmetic. When children can actively show action words like pounce, stalk, slither, or stomp or adjectives like huge, smooth, soft, or strong word knowledge is immediate and permanent. Words are learnt in context, not just as letters. This fosters language love and developing literacy. Children who take on low, high, narrow, and wide bodily shapes will learn numeric concepts better than those who are merely given words and explanations. Learning by doing increases brain and body brain connections, making the body a learning instrument (Pica, 2014).

Socio-cognitive development pertains to the progression of children's capacity to understand social connections, regulate emotions, and

cultivate cognitive capacities through play and educational encounters. Socio-cognitive development in early childhood education (ECE) is crucial, as it involves a child's capacity to establish connections, manage emotions, resolve issues, and comprehend the viewpoints of others. These skills are crucial for achieving academic achievement in the future and adapting well to social environments (Bierman & Erath, 2020).

Preschools have a crucial role in promoting socio-cognitive development through both organised and spontaneous activities. ECE fosters social play, allowing children to actively participate and so improve their cognitive skills, including language acquisition, retention, and mental agility (Collins & O'Donnell, 2019). Research has demonstrated that engaging in outdoor play can enhance socio-cognitive abilities by fostering collaboration, conflict resolution, and critical thinking in a natural setting (Tremblay *et. al.*, 2021).

The cognitive aspect of socio-cognitive development is intricately connected to children's capacity to engage in critical thinking, comprehend rules, and participate in intricate play scenarios. The amalgamation of social and cognitive growth facilitates the cultivation of self-awareness and the proficiency to adeptly navigate social encounters (Vygotsky, 1978). Preschools are placing increasing importance on holistic development, and one key method they use is encouraging socio-cognitive growth through play. For the purpose of this study, however, communication and self-esteem skills were considered as social skills while thinking and recall abilities are considered as cognitive skills.

Outdoor environments play a crucial role in allowing children to develop self-awareness and gain knowledge about their surroundings by engaging their senses (Ouvry, 2003). They enhance children's abilities to communicate their information, articulate their emotions, and exercise autonomy, so fostering greater success in their lives. Additionally, they provide educational settings conducive to conducting experiments, making discoveries, and doing research. Children engage in autonomous learning and derive enjoyment in a conducive setting that integrates natural elements and stimulates all sensory faculties. Unrestricted access to learning materials can enhance creativity and comprehension in

preschool children. They explore and develop their self-awareness and skills through unrestricted play (Ouvry, 2003).

Interacting with nature enhances linguistic ability, cognitive skills such as inference, planning, observation, recognition, and decision-making, as well as motor skills like coordination, endurance, and balance. Furthermore, the occurrence of antisocial behaviours diminishes while cooperation, solidarity, consensus, and conflict resolution abilities are improved (Burdette & Whitaker, 2005).

It generates many prospects for the advancement of motor skills. Furthermore, outdoor education enhances time management skills and fosters positive social relationships, enthusiasm for achieving success, leadership abilities, and the development of emotional regulation (Miller, 2008). Outdoor education unequivocally boosts personal and social growth, enhances children's comprehension of scientific principles, and promotes heightened engagement in physical pursuits.

According to the literature, education programs that include outdoor activities and begin in early childhood have been found to enhance cognitive, social-emotional, and physical-motor skills. They also improve awareness, the ability to identify cause-effect association, observation skills, creative thinking skills, imagination, and concentration (Adhemar, 2000). Outdoor exposure may benefit children's cognitive development and health (Chawla & Nasar, 2015). Outdoor time and cognitive-behavioral development may also be explained by creche philosophy, kind, or socioeconomic position (Geoffroy *et. al.*, 2007). To satisfy assessment and achievement expectations, our children appear to be taking fewer academic breaks. Studying more prevents the brain from resting and recharging. Children should play unorganised, monitored, during playtime in schools (Pellegrini & Bohn-Gettler, 2013).

Playtime or outside play time lets kids play or think freely without adult supervision. This kind of thinking lets kids use their brains as they choose. Children exercise and learn social, emotional, and cognitive skills while playing. More time outside helps kids physically and mentally refresh, which should improve their educational, social, and cognitive performance (Pellegrini & Bohn-Gettler, 2013). Spaced out learning

improves recall, according to memory and attention research. Play lets the brain “regroup”. Brain research links physical activity to brain connection growth. Children lead, teach games, take turns, and manage problems on the playground. Children develop negotiation and conflict resolution to keep the play going in free choice situations (Licata, 2016).

Objectives of the study

The following were the objectives of this study:

- I. To investigate teachers' perceptions of the impact of outdoor play on the communication skills of preschoolers.
- ii. To examine teachers' attitudes towards outdoor play as a tool for promoting socio-
- iii. Cognitive development of preschoolers.
- iv. To identify the perceived benefits of outdoor play on socio cognitive development of preschoolers.
- v. To determine the frequency and duration of outdoor play sessions in preschool as reported by the teachers.

Research Questions

- i. What are the teacher's perceptions of the impact of outdoor play on the communication skills of preschoolers?
- ii. How often and for how long do preschools engage in outdoor play sessions?
- iii. What are the perceived benefits of outdoor play on socio-cognitive development in preschoolers?
- iv. Is there a relationship between teachers' perceptions of outdoor play and their teaching practices in promoting socio-cognitive development in preschoolers?

Hypotheses

The following hypotheses were tested in this study:

H₀1: There is no significant impact of outdoor play on preschooler social skills development.

H₀2: There is no significant impact of outdoor play on preschooler cognitive development.

Methodology

This study employed the descriptive survey approach, and four research questions with two hypotheses were raised to guide this inquiry. Public and private preschool teachers in Mainland LGA of Lagos State formed the population for this study while 50 teachers were selected using the simple random sampling. Data collection was achieved with a self-designed 25-item questionnaire title “Teachers Perceptions of Outdoor Play Questionnaire” (TP_OPQ) was used for the study. The questionnaire was validated by experts in the department of measurement and evaluation from the University of Lagos, Akoka, while it yielded a Cronbach alpha reliability coefficient of 0.88, which indicates that the instrument was very reliable. The collected data were analysed with frequency counts to present the participants' personal data, mean scores to answer the research questions, and one-sample t-test to test the hypotheses, with the use of the Statistical Package for the Social Scientists (SPSS 23.0).

Results

Table 1: Participants' Personal Data

Characteristics	Options	Frequency	Percent (%)
Gender	Male	17	34.0
	Female	33	66.0
	Total	50	100.0
School	Private	28	56.0
	Public	22	44.0
	Total	50	100.0
Experience	1-5 years	12	24.0
	6-10 years	26	52.0
	11-15 years	12	24.0
	Total	50	100.0

Source: Field Survey, 2024

Table 1 indicates that the majority (66.0%) of the participants were female and the remaining 34.0% of them were male, implying that there are more female teachers than there are male in preschools. 56.0% of the teachers were from private schools and the remaining 44.0% of them were from public schools. Furthermore, 24.0% of the teachers had 1-5 years teaching experience, 52.0% of them had 6-10 years teaching experience, and the remaining 24.0% of them had 11-15 years teaching experience.

Analysis of Research Questions (RQs)

This section answers the research questions earlier raised using mean scores, as shown below:

Table 2: RQ1: What are the teacher's perceptions of the impact of outdoor play on the communication skills of preschoolers?

S/N	Item	Mean	Std. Dev.
1	Engaging in outdoor play improves children's cognitive skills, such as critical thinking	2.53	.081
2	Children have exceptional cognitive abilities and deep thinking when they engage in outdoor play.	3.34	.301
3	Children who engage in outdoor play demonstrate an increased desire towards learning compared to those who do not have such exposure	3.44	.198
4	A child exposed to outdoor play have better academic performance	2.94	.135
5	Engaging in outdoor play improves children's cognitive skills like problem -solving.	2.90	.120
6.	Engaging in regular outdoor play enhances the cognitive development of preschoolers by fostering their capacity for independent thinking and decision -making.	3.12	.213
Sub-mean		3.05	.175

Strongly Agree (SA) = 3.5 & above; Agree (A) = 2.5-3.49; Disagree (D) = 1.50-2.49; and Strongly Disagree (SD) = below 1.5

Table 2 shows all of the mean scores of the items 1-6 above are greater than 2.5 ($\bar{x} > 2.5$) and the sub-mean = 3.05. These imply that most of the participants agreed with the items answering the research question one. Hence, the answer to the research question is that the teachers opined that

outdoor play has positive effects on the communication skills of preschoolers.

Table 3: RQ2: How often and for how long do preschools engage in outdoor play sessions?

S/N	ITEM	Mean	Std. Dev.
7	Engaging in outdoor play greatly improves the capacity of children to remember what they have learnt.	3.25	1.978
8	Consistent participation in outdoor activities enhances the memory retention abilities of preschool -aged children.	3.43	.177
9	Children who engage in outdoor play demonstrate enhanced cognitive abilities in terms of remembering and executing instructions and tasks	3.23	1.094
10	Engaging in outdoor play creates enriching surroundings that enhance the memory capacity of children when participating in classroom activities.	3.32	1.119
11	Engaging in outdoor play facilitates long -term retention of knowledge in children.	2.69	1.081
12	Engaging in outdoor play offers children firsthand experiences.	2.98	1.312
13	Engaging in outdoor play enhances children's ability to easily recall and remember information.	3.31	.121
Sub-mean		3.17	.983

Strongly Agree (SA) = 3.5 & above; Agree (A) = 2.5-3.49; Disagree (D) = 1.50-2.49; and Strongly Disagree (SD) = below 1.5

Table 3 shows all of the mean scores of the items 7-13 above are greater than 2.5 ($\bar{x} > 2.5$) and the sub-mean = 3.17. These indicate that the majority of the participants agreed with the items answering research question two. Hence, the answer to the research question is that outdoor play helps in enhancing preschoolers' self-esteem.

Table 4: RQ3: What are the perceived benefits of outdoor play on socio-cognitive development in preschoolers?

S/N	ITEM	Mean	Std. Dev.
14	Exposing children to outdoor play improves their speech development	2.71	.038
15	Engaging in outdoor play fosters efficient communication among children.	3.40	1.065
16	Children engage in social interaction with one another by participating in outdoor play activities.	3.33	.025
17	Children who engage in outdoor play demonstrate superior socialisation skills compared to those who do not.	2.79	1.157
18	Engaging in outdoor play greatly enhances the language expression and conversational skills of preschool children.	3.30	1.145
19	Preschoolers who regularly engage in outdoor play experience improved listening and understanding skills while interacting with others.	3.42	.231
Sub -mean		3.16	.610

Strongly Agree (SA) = 3.5 & above; Agree (A) = 2.5-3.49; Disagree (D) = 1.50-2.49; and Strongly Disagree (SD) = below 1.5

Table 4 shows all of the mean scores of the items 14-19 above are greater than 2.5 ($\bar{x} > 2.5$) and the sub-mean = 3.16. The implication of this is that most of the participants agreed with the items answering the research question three. Hence, the answer to the research question is that outdoor play inculcates critical thinking ability in preschoolers.

Table 5: RQ4: Is there a relationship between teachers' perceptions of outdoor play and their teaching practices in promoting socio-cognitive development in preschoolers?

S/N	ITEM	Mean	Std. Dev.
20	Engaging in outdoor activities enhances children's self-confidence in their skills.	3.22	.611
21	Consistent engagement in outdoor activities boosts children's sense of self-esteem.	3.31	.502
22	Children that participate in outdoor activities are inclined to exhibiting positive self-esteem.	2.72	.310
23	Engaging in outdoor activities fosters a sense of accomplishment in children.	3.34	1.017
24	Outdoor activities contribute to the development of children's self-identity.	2.65	1.091
25	Engaging in outdoor activities diminishes feelings of inferiority and enhances children's self-confidence.	2.92	.721
Sub -mean		3.03	.709

Strongly Agree (SA) = 3.5 & above; Agree (A) = 2.5-3.49; Disagree (D) = 1.50-2.49; and Strongly Disagree (SD) = below 1.5

Table 5 shows all of the mean scores of the items 20-25 above are greater than 2.5 ($\bar{x} > 2.5$) and the sub-mean = 3.03. These indicate that most of the participants agreed with the items answering research question four. Hence, the answer to the research question is that the preschool teachers believed that outdoor play positively affects preschoolers' ability to recall knowledge.

Test of Hypotheses

The research hypotheses were tested with the use of one sample t-test, as shown below:

Hypothesis One

There will be no significant impact of outdoor play on preschooler social skills.

Table 4.6: One Sample Statistics

One-Sample Statistics	N	Mean	Std. Deviation	Std. Error Mean	
There will be no significant impact of outdoor play on preschooler social skills	50	3.10	.659	.013	
One-Sample Test	Test Value = 2.5				
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Diff.
					LowerUpper
There will be no significant impact of outdoor play on preschooler social skills	5.126	49	.001	.60	.1820.4203

Table 4.6 shows that the mean score ($M = 3.10$, $SD = .659$) for the construct is rated above '2.5', a statistically significant mean difference of 0.60, 95% CI [0.182 to 0.4203 $t(49) = 5.126$, $p = .001$. Hence, the null hypothesis that states “There will be no significant impact of outdoor play on preschooler social skills” is rejected and its alternative that states “There will be significant impact of outdoor play on preschooler social skills” is accepted.

Hypothesis Two

There will be no significant impact of outdoor play on preschooler cognitive development.

Table 4.7: One Sample Statistics

One-Sample Statistics	N	Mean	Std. Deviation	Std. Error Mean	
There will be no significant impact of outdoor play on preschooler cognitive development	50	3.11	.579	.026	
One-Sample Test	Test Value = 2.5				
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Diff.
					LowerUpper
There will be no significant impact of outdoor play on preschooler cognitive development	18.207	49	.003	0.61	1.1911.291

Table 4.7 shows that the mean score ($M = 3.11$, $SD = .579$) for the construct is rated above '2.5', a statistically significant mean difference of 0.61, 95% CI [1.191 to 1.291 $t(49) = 18.207$, $p = .003$. Hence, the null hypothesis that states “There will be no significant impact of outdoor play on preschooler cognitive development” is rejected and its alternative that states “There

will be significant impact of outdoor play on preschooler cognitive development” is accepted.

Discussion of findings

The results of this study demonstrate that outdoor play has a notable influence on the social skills of preschoolers. This aligns with the notion that engaging with the natural environment improves linguistic proficiency, cognitive abilities such as deduction, strategising, perception, identification, and decision-making, as well as physical qualities like dexterity, stamina, and stability. Moreover, the frequency of antisocial behaviours decreases while cooperation, solidarity, consensus, and conflict resolution skills are enhanced (Burdette & Whitaker, 2005). It creates several opportunities for the development of motor skills. Moreover, outdoor education improves the ability to manage time effectively and promotes the formation of healthy social connections, a strong desire to achieve success, leadership qualities, and the cultivation of emotional self-control (Miller, 2018). Outdoor education undeniably helps personal and social development, deepens children's understanding of scientific ideas, and fosters increased involvement in physical activities.

The results of this study demonstrate a substantial influence of outdoor play on the cognitive development of preschoolers. Consistent with prior research, Adhemar (2000) discovered that educational programs incorporating outdoor activities and commencing in early childhood have been shown to improve cognitive, social-emotional, and physical-motor abilities. Additionally, they enhance awareness, the capacity to recognise cause-effect relationships, observational abilities, creative thinking skills, imagination, and focus. According to Chawla and Nasar (2015), spending time outdoors can have positive effects on children's cognitive development and health. The relationship between outdoor time and cognitive-behavioral development can also be influenced by factors such as creche ideology, kindness, or socioeconomic position (Geoffroy et al., 2007). In order to meet assessment and success standards, it seems like our children are taking fewer academic breaks. Engaging in further studying inhibits the brain from experiencing rest and rejuvenation. According to

Pellegrini & Bohn-Gettler (2013), it is recommended that children engage in unsupervised play during designated playtime at schools.

Conclusion

The findings of this study indicate that engaging in outdoor play has a substantial impact on the socio-cognitive development of children in preschool. The results demonstrate that engaging in outdoor activities facilitates the cultivation of essential social abilities, encouraging the engagement, collaboration, and communication of young children. In addition, engaging in outdoor play boosts cognitive capacities by encouraging curiosity, problem-solving skills, and critical thinking. The beneficial influence on both social and cognitive aspects underscores the need of integrating outdoor play into early childhood education programs to promote comprehensive development.

Recommendations

This study's findings lead to the following suggestions:

1. Preschool programs should incorporate regular outdoor play sessions into their curriculum to improve the socio-cognitive development of children.
2. Early childhood educators should receive training on the advantages of outdoor play and the proper utilisation of outdoor settings to enhance social and cognitive abilities in preschoolers.
3. Schools should allocate resources towards the creation of secure and engaging outdoor recreational spaces that foster curiosity, ingenuity, and interpersonal communication.
4. Parents should be urged to promote outdoor play activities at home, creating an atmosphere that enhances social and cognitive development outside of school.
5. Educational planners should provide utmost importance to outdoor play in ECE regulations, guaranteeing that preschools dedicate ample time and resources for outdoor activities.

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