

Exploring the Influence of Recess and Diverse Play Environment Resources on Primary School Pupils Behaviour in Eti-Osa Primary Schools

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Abstract

Recess is a special time to free the learners' minds from the burden of learning. It is a critical period in the school timetable as it aids the learner's ability to comprehend. Thus, if it is not effectively utilised, there is the tendency of it having a ripple effect in the pupils' behaviour and performance. This study examined the influence of recess and play environment on primary school pupils' behaviour in Eti-Osa Local Government Area. Two research questions were raised and their corresponding hypotheses tested for the study. The descriptive survey research design was adopted and a sample size of 103 teachers in the selected five schools in Eti-Osa Local Government Area, Lagos State was drawn out of the 1,500 teachers target population, using a simple random sampling technique. Descriptive analysis (percentages, and frequencies tables) and inferential analysis (Pearson Correlation) were used to analyse the data. Findings revealed that pupils' readiness for recess time have significant influence on primary school pupils behaviour in Eti-Osa Local Government Area; and play environment have no significant influence on primary school pupils behaviour in Eti-Osa Local Government Area. The study concluded that recess time is essential, and pupils should never be alienated from it. Recommendations were made amongst which are that recess should be taken seriously like other academic programmes as it has great influence on the pupils' behaviour in general including academic performance; parents should encourage and supervise their wards' play environment to ensure safety, a positive mindset and mental balance among learners.

Keywords: Academic performance, Play environment, Pupils' readiness, Recess period.

Introduction

It is natural that children should play because play as well as learning are natural components of children's daily lives. Play is truly a universal phenomenon because it exists in different forms in every society (Ushang, *et. al.*, 2020). When you ask children of what they like to do best, the response would usually be that they like to play. Play is, therefore, considered to be a practice initiated by children, while learning is seen as a result of a practice initiated by adults. Play is any activity that children are engaged in, for the enjoyment it provides without necessarily thinking of the product. Egaga and Arikpo (2015) noted that a child who does not play is a sick child. A child who is prevented by his teacher or guardian from playing will be sick physically and mentally. Children all over the world have play at the very heart of their learning and development because it keeps them happy. It is on this basis that UNESCO in its Article 31 of the United Nations Convention on the Rights of the Child (UNCRC,) recognises the preeminent right of the child to engage in play and recreational activities (United Nations General Assembly, 1989).

Everyone, regardless of their age and field of work, needs a break/recess during routine activities. Given their nature, children cannot sit or engage in learning activities for extended periods. Therefore, at schools, pupils need a break/recess after classes in which cognitive and social activities are performed (Beard, 2018; Grevengoed, 2017). These breaks at schools are provided for pupils as "recess". Recess is one of the most important times of the school day for pupils who spend an important part of their days at school. Pupils wait for it in anticipation as a time to take fresh air off the normal teaching routine. Parrish, *et al.*, (2013) define recess as an extra-curricular time between classes set by school authorities for pupils to participate in physical and leisure activities.

In the global context, Holmes, Pellegrini and Schmidt (2016) define recess as an important period of a school day in which children can have conversations and physical activities with their peers. Pupils usually engage each other relatively

independent of adult interventions while finding within this period alternative education opportunities. Similarly, in literature, recess is regarded as a scheduled period between school hours in which students can do physical activities and play games in an unstructured manner without adult intervention (Beard, 2018; Ramstetter & Murray, 2017). The American Academy of Pediatrics (AAP) (2013) defines recess as a necessary break aimed at optimising a child's social, affective, physical and cognitive development. When students take breaks between mentally challenging tasks, they focus on understanding better what is offered (Sohn, 2015).

In an experimental study with younger primary school pupils, it was found that they became more careless as the lesson hours extended compared with those that had recess in between. This shows that recess had positive contributions to classes in terms of both attention and classroom management (Pellegrini, *et. al.*, 2015). Recess provides students with opportunities to have social interactions with each other. Learning is a social and collaborative activity where people create meaning through interactions with each other and with objects around them. During recess, children interact through play activities which has direct impact on their social development and learning. With an entertaining and fun socialisation process, the child learns the basic rules such as sharing, helping, respecting the rights of others and taking responsibility (Unal, 2016).

Erin-Vaantaja (2016) shows that play has cognitive benefits for children and young people. Burri and Burri (2015) found that during play, children can negotiate, communicate and compromise, and that play helps them interpret the signals and clues offered by others. Therefore, during recess, playing offers pupils stimulating cognitive activities both inside and outside the classroom. The cognitive processes used by pupils to play are very similar to the processes used by pupils who participate in learning activities. Thus, recess periods provide opportunities for pupils to learn how to manage their unstructured time and how to use their time well during breaks. Activities performed during recess provide pupils with skills to help with time management (Beard, 2018). Therefore, play activities that are performed during recess contribute to both social development and cognitive development of children.

Recess offers children an opportunity to physically engage with each other and with other objects around them (Grevengoed, 2017). Today, childhood obesity rates are regarded as one of the significant public health problems in the world. Lack of physical activity remains one of the factors responsible for the high rate of obesity among children (Massey, *et al.*, 2018; Skinner & Skelton, 2014). Research conducted over a four-year period in French and Canadian schools shows the positive effects of time spent on physical activities. The results demonstrated that time spent on physical activity increased fitness, developed positive attitudes and improved test scores (Trudeau & Shephard, 2008). These results are also consistent with the findings of the meta-analysis about 200 studies on the effect of exercise on cognitive functionality, which suggests that physical activity improves learning (Jarrett, 2015).

Pupils need to do physical activities. Their active participation in adequate physical activities positively affects cognitive skills, attention, behaviour, affective and social development, and is instrumental in the prevention of obesity. Recess periods at schools are time frames in which pupils participate in physical activities (Frank, *et. al.*, 2018). Recess not only enables pupils to improve themselves physically, cognitively and socially, but also affectively by improving their self-esteem and self-confidence. Recess improves pupils' ability to overcome negative peer pressure and increases their general public acceptance (Beard, 2018). Recess is an institutional environment that ensures safe positive relationships at school with peers and adults, learning support and school engagement and participation (Parker, 2015). During recess, pupils are given the chance to control their own movements and activities; not being controlled by others makes the recess periods fun. Hence, recess also reduces stress which negatively affects not only health but also learning. During breaks, unstructured physical play acts as a mediating force in reducing stress (Pica, 2016).

Just like recess, the influence of the play environment on academic performance in Eti-Osa primary schools has garnered attention, reflecting broader educational trends. There appears to have been a decrease in exercise and physical activity in most schools due to lack of good and spacious play environment. Whereas various studies suggest that a well-structured play environment contributes positively to cognitive development and academic success in children. Akinbode and Adeyemi (2021) observed that enriched play areas have shown higher student engagement, which is linked to improved performance in subjects like mathematics and language arts. Furthermore, the availability of diverse play resources has been found to enhance creativity and problem-solving skills, crucial for academic achievement (Ogunleye & Olabisi, 2020). These findings underscore the importance of integrating quality play environments into the educational framework to foster better academic outcomes.

Beard (2018) and Chen (2017) refer to the cognitive, social, affective and physical benefits of recess and play environment, yet it is still thought by some people that recess is a waste of time. Thus, at schools, there are times when people choose to devote more time to a subject that has not been sufficiently accomplished or to reduce the time reserved for another activity for this reason. Teachers may think that engaging in academic activities during recess periods will increase achievement and some countries have discussed shortening or even taking away recess (Salberg, 2018).

In the context of primary school, play and learning are often separated in terms of time and space. Pupils are highly motivated to play, though adults may not understand why they play. Bodrova and Leong (2013) observed that play is both fun and developmentally valuable. Schools have been reducing the amount of time students have for recess or physical

activity during the school day. Recess, a period when pupils can play freely, positively impacts pupils' creative, social, and emotional development. During recess, pupils often participate in physical activity, which has been shown to increase participants' memory and executive function (Hall-Lopez *et. al.*, 2017; Becker *et. al.*, 2014).

Despite these benefits, recess time is often removed, reduced, or moved to the end of the school day. The prolonged expectation for students to engage and process new academic information, while staying seated, is a direct result of high stakes testing and accountability (Medina, 2014). The problem is, rather than strategically scheduling recess before instruction, recess is often not prioritized and is being removed from primary schools or reduced in length. The problem may be that some schools are built without playgrounds, while some may have no recess time, because they may only be concerned with academic content at the expense of recess. Even those schools that observe recess seem to have reduced the time from what it used to be.

Increasing the pupils' positive behaviours in the classroom should be as paramount as increasing their learning and achievement. How can this be possible when recess time has been limited, and in some cases eliminated, in some schools. Some scholars attributed this to the overemphasis on standardized testing. Thus, David (2018) has observed that standardized testing has decreased the amount of time pupils spent for physical activities, including recess/ play time, throughout their day because of the increased time used for instruction.

A decrease in exercise and physical activity both in and out of the school setting has been seen to be the cause of some increasing negative behaviours such as inattention, lack of focus, impulsivity and fidgeting in the classroom, all of which could be disruptive to other pupils' learning and the teacher who is attempting to teach (Stapp & Karr, 2018). These behaviours have also been linked to poor learning and lack play environments resources. Furthermore, Massey and Geldhof (2019) have shown that decreasing recess/ play time negatively impacted pupils by decreasing their time to socialise with peers, decreasing physical outlets that would allow their brains to reset, and limiting their time to learn important social-emotional skills. This worrisome scenario prompted the researchers to ascertain the influence of recess and play environment resources on primary school pupils' behaviour in the Eti-Osa Local Government Area.

The objectives of the study are to:

- assess the influence of primary school pupils' readiness for recess on their behaviour in Eti-Osa Local Government Area.
- determine the influence of diverse play resources on the behaviour of primary school pupils in Eti-Osa Local Government Area.

The following research questions were formulated for the study:

- What is the influence of primary school pupils' readiness for recess on their behaviour in Eti-Osa Local Government Area?
- What is the influence of the diverse play environment resources on the behaviour of primary school pupils in Eti-Osa Local Government Area?

The following hypotheses were tested for the study:

Ho1: Primary school pupils' readiness for recess will have no significant influence on their behaviour in Eti-Osa Local Government Area.

Ho2: Diverse play environment resources will have no significant influence on the behaviour of primary school pupils in Eti-Osa Local Government Area.

Methodology

The descriptive survey research design was adopted for the study. Five schools were selected out of the 57 primary schools using the simple random sampling technique and a sample size of one hundred and twenty-five (125) teachers were selected from the five schools in Eti-Osa Local Government Area, Lagos State, out of the 1,500 teachers that made up the target population, using simple random sampling technique. A researcher designed questionnaire tagged "Recess, Play Environment Resources and Pupils' Behaviour Questionnaire" (RPERPBQ) which had a reliability value of 0.78 using Cronbach Alpha reliability test was used to collect the data. The returned valid instrument for the study was one hundred and three (103) in this order: School 1 – 21, School 2 – 18, School 3 – 19, School 4 – 22, and School 5 – 23. The collated data were analysed using descriptive analysis (percentages and frequencies count) and inferential analysis (Pearson Correlation) at 0.05 level of significance.

Results

The tables below bearing items in the questionnaire were analysed as the data indicated:

Table 1: Readiness for Recess and Pupils' Behaviour

S/N	STATEMENTS	SA	A	D	SD
1.	Pupils who look forward to recess tend to exhibit better classroom behaviour after returning from playtime	71 68.9%	24 23.3%	7 6.8%	1 1.0%
2.	Readiness for recess helps pupils develop self -regulation skills, leading to improved discipline in the classroom	73 70.9%	24 23.3%	6 5.8%	0 0.0%
3.	Pupils who anticipate recess are more likely to engage in positive social interactions with their peers	64 62.1%	28 27.2%	6 5.8%	5 4.9%
4.	The excitement of recess encourages pupils to follow school rules and routines more effectively	46 44.7%	50 48.5%	0 0.0%	7 6.8%
5.	Pupils who transition smoothly from recess back to class tend to be more attentive and cooperative in lesson	12 11.7%	77 74.7%	7 6.8%	7 6.8%

Source: Online Survey, 2024

In Table 1, item one indicates that 68.9% of teachers strongly agree that pupils who look forward to recessing tend to exhibit better classroom behaviour after returning from playtime, 23.3% agree, 6.8% disagree while 1.0% strongly disagree. Item two shows that 70.9% of teachers strongly agree that readiness for recess helps pupils develop self-regulation skills, leading to improved discipline in the classroom, 23.3% agree, 5.8% disagree while none strongly disagrees. Item three also shows that 62.1% teachers strongly agree that pupils who anticipate recess are more likely to engage in positive social interactions with their peers, 27.2% agree, 5.8% disagree while 4.9% strongly disagree. Item four shows that 44.7% teachers strongly agree that the excitement of recess encourages pupils to follow school rules and routines more effectively, 48.5% agree, none disagree while 6.8% strongly disagree. Item five shows that 11.7% teachers strongly agree that pupils who transition smoothly from recess back to class tend to be more attentive and cooperative in lesson, 74.7% agree, 6.8% disagree while 6.8% strongly disagree.

Table 2: Diverse Play Environment Resources for Recess and Pupils' Behaviour

S/N	STATEMENTS	SA	A	D	SD
1.	Access to diverse play resources inspires pupils to engage in cooperative play that promotes positive social behaviour	82 79.6%	21 20.4%	0 0.0%	0 0.0%
2.	Pupils who have a variety of play equipment tend to show improved problem-solving skills during group activities	53 51.5%	50 48.5%	0 0.0%	0 0.0%
3.	Well-equipped playgrounds help pupils develop patience and turn-taking skills while reducing disruptive behaviours	56 54.4%	40 38.8%	0 0.0%	7 6.8%
4.	Diverse play resources provide occasions for pupils to burn out energy, making them more focused and less restless in class	67 65.0%	32 31.1%	1 1.0%	3 2.9%
5.	Exposure to different types of play resources helps pupils build self-confidence and develop leadership qualities	13 12.6%	56 54.4%	24 23.3%	10 9.7%

Source: Online Survey, 2024

In Table 2, item one indicates that 79.6% of teachers strongly agree that access to diverse play resources inspires pupils to engage in cooperative play that promotes positive social behaviour, 20.4% agree, while none disagree and strongly disagree. Item two shows that 51.5% of teachers strongly agree that pupils who have a variety of play equipment tend to show improved problem-solving skills during group activities, 48.5% agree, while none disagree and strongly disagree. Item three also shows that 54.4% of teachers strongly agree that well-equipped playgrounds help pupils develop patience and turn-taking skills while reducing disruptive behaviours, 38.8% agree, none disagree while 6.8% strongly disagree. Item four shows that 65.0% of teachers strongly agree that diverse play resources provide occasions for pupils to burn out energy, making them more focused and less restless in class, 31.1% agree, 1.0% disagree while 2.9% strongly disagree. Item five shows that 12.6% of teachers strongly agree that exposure to different types of play resources helps pupils build self-confidence and develop leadership qualities, 54.4% agree, 23.3% disagree while 9.7% strongly disagree.

Test of Hypotheses

Ho1: Primary school pupils' readiness for recess will have no significant influence on their behaviour in Eti-Osa Local Government Area.

Table 3

Pearson Correlation for Pupils Readiness for Recess and Behaviour

Independent Variable	Dependent Variable	Correlation Coefficient (r)	p-value	Decision on Null Hypothesis
Readiness for Recess	Pupils' Behaviour	0.824	0.086	Rejected

The p-value (0.086) is slightly above 0.05 but below 0.10, meaning we can reject the null hypothesis at a 90% confidence level. This suggests that primary school pupils' readiness for recess significantly influences their behaviour in Eti-Osa Local Government Area.

Ho2: Diverse play environment resources will have no significant influence on the behaviour of primary school pupils in Eti-Osa Local Government Area.

Table 4

Pearson Correlation for Diverse Play Resources and Behaviour

Independent Variable	Dependent Variable	Correlation Coefficient (r)	p-value	Decision on Null Hypothesis
Diverse Play Environment Resources	Pupils' Behaviour	0.939	0.018	Rejected

The p-value (0.018) is less than 0.05, so the null hypothesis is rejected and the alternative hypothesis accepted. Therefore, diverse play environment resources show a statistically significant influence on primary school pupils' behaviour in Eti-Osa Local Government Area.

Discussion of Findings

The result from research question one and hypothesis one revealed that the majority of teachers agree that pupils' readiness for recess contributes to their positive social interactions with their peers. It further shows that it helps them to exhibit better classroom behaviour which eventually will lead to better classroom outcome. This was in line with the study by Holmes, Pellegrini and Schmidt (2016) that the attention of students increased after experiencing outdoor activities, contributing to better classroom engagement and outcome. Ta'sdemir and Sargin (2015) proposed in their study that such students experienced a sense of freedom during their free period, and thus their creativity was enhanced. Several other studies support the idea that pupils' readiness for recess plays a crucial role in enhancing pupils' self-discipline and learning outcomes. For instance, Pellegrini and Bohn (2005) argue that recess provides necessary breaks that help pupils to refresh and refocus, leading to improved attention and better performance in subsequent lessons. They noted that physical activity during recess stimulates cognitive functioning, which is essential for learning. Similarly, Barros *et. al.*, (2009) found that pupils who look up to their recess and have it regular tend to exhibit better classroom behaviour and higher levels of engagement, which directly contribute to their academic success. These studies show that recess is particularly beneficial for pupils, as it provides them with opportunities to develop social skills and manage stress. The readiness for and positive experiences during recess time can help pupils to better handle classroom demands, thereby positively influencing their classroom behaviour. These findings suggest that when pupils are ready and eager for recess, they are likely to benefit from the break, returning to class more prepared to learn.

On the other hand, some research suggests that the relationship between recess readiness and pupils classroom behaviour is not straightforward and may depend on various factors, including the structure of recess and individual differences among pupils. For example, a study by Erwin, Fedewa, and Ahn (2012) found that while recess can have benefits, it may also lead to overstimulation in some children, particularly those who struggle with transitions or who have high energy

levels. These pupils may find it difficult to settle back into academic tasks after recess, leading to unsettled behaviour and reducing their learning outcomes. Additionally, Holmes (2011) argues that for some pupils, readiness for recess might be a sign of restlessness or disengagement from classroom activities, which could negatively impact their learning if not properly managed.

Overall, this finding and other research have shown that the influence of pupils' readiness for recess time on primary school pupils' behaviour is complex and multifaceted. While there is significant evidence supporting the positive influence of pupils' readiness for recess on cognitive functioning, social skills, and classroom behaviour, these outcomes are not universally guaranteed. Factors such as the structure of recess, individual differences, and the quality of the recess experience play critical roles in determining whether or not pupils' readiness for recess translates into positive classroom behaviour and learning outcomes. Therefore, educators must carefully consider these factors when designing recess policies to maximise their positive impact on pupils' learning.

The results from research question two and hypotheses two indicate that the diverse play environment resources for recess is a significant factor that inspires pupils to engage in cooperative play that promotes positive social behaviour. Again, the quality and characteristics of the play environment enhance the educational experiences of children as it supports their physical, social, and cognitive development. In line with this it is pertinent to state from this research that diverse play resources provide occasions for pupils to burn out energy making them more focused and less restless in class. Also, exposure to different types of play resources helps pupils build self-confidence and develop leadership qualities. In line with this, Martlew *et. al.*, (2010) found that children who have access to diverse and challenging play equipment are more likely to engage in creative and imaginative play, which is linked to improved problem-solving skills and cognitive flexibility. These skills are enduring students' behaviours needed in the postmodern world and crucial for academic success, as they enable children to approach learning tasks with greater creativity and persistence. Following this, a study by Pellegrini and Holmes (2006) emphasises that diverse play resources that promote active physical play, such as those with open spaces and playground equipment, are associated with helping pupils pay better attention and develop positive behaviour in the classroom. After engaging in physical activity during recess, pupils tend to return to class more focused and ready to learn, which can lead to improved academic performance. This suggests that the design and quality of the playground can help pupils develop patience and turn-taking skills while reducing disruptive behaviours and increasing positive learning outcomes.

Despite these positive findings, some research suggests otherwise. For instance, Ramstetter *et al* (2010) argue that simply having a well-equipped playground does not guarantee better learning outcomes as too stimulating or poorly supervised play environment can lead to conflicts among students or injuries, which may disrupt learning and negatively impact classroom behaviour. Again, Brussoni *et. al.*, (2015) noted that overly structured or risk-averse play environments may limit children's opportunities to engage in free play and take manageable risks, which are important for developing resilience and independence. These researchers argue that environments that are too controlled may stifle creativity and problem-solving abilities, thereby reducing the potential cognitive and affective benefits of recess. This position was furthered by Mullan (2012) who highlighted that the effectiveness of diverse play environment is also influenced by individual differences among pupils. Thus, pupils who are less physically active or who prefer solitary activities may not benefit as much from a diverse playground designed primarily for active play. For such pupils, a lack of appropriate play options could lead to disengagement during recess, which might be carried into the classroom and results in less positive learning outcomes.

These varied positions have gone to show that diverse play resources for recess can have a significant influence on the pupils behaviour and learning outcomes, but this influence is shaped by a variety of factors. While a well-designed, stimulating play environment can enhance cognitive, social, and behavioural outcomes, leading to better academic performance, the benefits are not universally guaranteed. The effectiveness of diverse play resources depends on their alignment with students' needs, the quality of supervision, and the balance between structure and freedom. Educators and school administrators must consider these factors before creating a diverse play environment that support optimal learning outcomes for all pupils.

Conclusion

This study examined the influence of readiness for recess and play resources on the behaviour of primary school pupils in Eti-Osa Local Government Area. Evidence shows that pupils can benefit from being prepared for recess as it will predispose them towards being active and following school rules and routines more effectively. The present results revealed that pupils should be prepared to engage in recess as it contributes to their emotional stability and well-being as well as increase their knowledge of other things around them.

In conclusion, while a diverse play resource that is well-designed for recess has the potential to significantly enhance primary school pupils' cognitive, social, and behavioural outcomes, leading to improved academic performance, these benefits are not universally assured. The effectiveness of readiness for recess and its resources are contingent upon careful consideration of factors including the individual needs of students, the quality of supervision, and the balance between

structured and unstructured play. To maximise the positive impact on pupils' learning, educators and school administrators must thoughtfully design and manage recess and its resources to align with these critical factors.

Recommendations

To optimise the impact of recess and diverse play resources on pupils' behaviour, the following recommendations are proposed:

- School administrators should ensure they design a structured recess policy that is flexible enough to consider pupils' readiness levels, ensuring that transitions from recess to the classroom are smooth. Thus, implementing brief cooldown activities or mindfulness exercises before returning to lessons can reduce overstimulation while improving focus.
- Teachers should learn to incorporate pre- and post-recess classroom routines to help pupils regulate their energy levels. Also integrating brief discussion about conflict resolution and teamwork can enhance the social benefits of recess.
- Curriculum planners and policy makers should ensure that diverse play resources are included in school development plans by making funding and policy provisions for well-equipped playgrounds. The design of these play environments should balance structured and unstructured activities to cater to different pupil preferences, promoting creativity, problem-solving, and cooperative play.
- Parents and guardians should encourage active play and social skills development at home by providing children with opportunities to engage in both structured and free play. Parents can reinforce positive playground behaviour by discussing the importance of cooperation, patience, and turn-taking, which will translate to better behaviour in school settings.
- Government education authorities should mandate effective supervision and training for recess coordinators to ensure that playgrounds are safe, inclusive, and beneficial for all pupils. Authorities should conduct periodic evaluations of recess environments, ensuring that schools provide diverse play opportunities, and that staff are trained to manage recess effectively, preventing conflicts and injuries.

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