

## Effects of Population Density on Space for Outdoor Games in Early Learning Centers: A Case Study of 3 Centers

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### Abstract

Play is an essential part of every child's life and Play could be carried out indoor or out door. Outdoor play helps in physical, emotional, intellectual, social and spiritual development of the child. The potentiality of out door play to achieve the attributes stated above depends greatly on the play space available which is determined by the population density. This means that if the child is denied access to a stimulating play space because of population density, the holistic development of the child will be affected. To avert this foreseen problem, the researchers carried out this study which investigated the effects of population density on space for out door games. A qualitative case study research design involving observation of 50 randomly selected 4-5 yr old children playing at three (3) randomly selected early learning centres in Awka urban centres was used. The learning centres were tagged A, B and C. The observation done with a checklist was based on site of the school, the population density, space arrangement, available plays materials and school climate. The major findings of the study among others are that centres A and B have high population density and this resulted in insufficient play space which affected the quality of out door games the children played. This is contrary to centre C which experienced the opposite, the population density was low, they have enough space and quality play materials and these helped the children to play quality outdoor games. The researchers therefore concluded that for the early learning centres in the country to achieve a sustainable play curriculum, quality play materials and adequate spaces that will ensure low population density must be provided by the care givers. Based on the findings, the researchers recommended among others, that providers of early learning centres should be educated on the value of setting up an enabling play spaces for quality outdoor games for the achievement of a sustainable growth and development in the child through play.

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**Keywords:** population, population density, space, outdoor game, early learning centres

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### INTRODUCTION

During the preschool years, young children greatly expand their knowledge; understanding and abilities. They actively explore and discover their world through experiences using their senses of touch, sight, smell, hearing and taste. The Child's discovery of the environment could be done through play which is a universal language every child understands. Play is seen as a positive tool for holistic development in young children. A child's life is fairly structured and regulated, there is not much decision making because adult and care givers tell them what to do at any particular time but play is the only way children direct themselves and create the world in which they are in control of .

According to Bedrova and Leong (2005) play is a specific behavior involving divergent thinking usually used to describe the activities of children from babyhood until the early teenage years or it is equally something in which humans of all ages from diverse cultures engage in, although the purpose for

and the type of play may be different across ages and culture.

Play gives children fun and joy and helps in developing the child's personality, realization of their potentials and to experience the satisfaction of success. Play could be outdoor or indoor play. Children often feel cooped up and they need a time they will be left alone to feel free and receive fresh air and that time is during outdoor games .Playing out door is a form of exercise that promotes wellbeing and wholesome physical development and children are naturally drawn to active play outdoors. Outdoor play involves running around, climbing, building with mud, chasing, driving swings and equally involves traditional games. Out door games allow children to explore their environment, develop muscles strength and coordination, and gain self confidence. According to Tassoni and Hucker (2002), during outdoor games children get involved in different kinds of play, including child- initiated play using free chosen equipment they interpret in their own ways. During the playing of out door games ,3

to 4 year children become fascinated with sound such as songs, chants and rhymes and play of this kind is related to language development in that the ability to sing and rhyme is highly correlated to early speaking and reading achievement(Bergen and Maur, 200).

Play is so important to children that the right to play was included in Article 31 of the conventions on the Rights of the child which recognizes the child's right to rest, leisure and engage in play and recreational activities appropriate to the age of the child (UNICEF 1989).Children need a world of their own and that is play.

#### **Effects of Population Density on Play Space**

Population is the amount of organism in a particular environment while population density is the population per unit of land. Population density helps to describe how much space an organism has in that unit of land. When the population density is high, the play space and materials will be greatly affected. Children find it difficult to carry out door activities when the space is insufficient. To achieve a positive and sustainable development in children, the population density must be low, through this enough play space will be created for children to get involved in different kinds of out door games . It is through the outdoor play time that children experience freedom and come in contact with nature

Space is a cherished item in early learning centres. The space should be free from traffic for children to use it with out fear and without constant reminders to protect themselves. Children need space and time to play during outdoor games because of the nature of activities they get involved in. Successful play space stimulates the five senses and offer children challenges and activities that test the limits of their capabilities, including rough and tumble, sports and games and opportunities to climb.(Hughes, 1996).

Following the recent attention given to childhood education in Nigeria, many private individuals opened up child care centres in some unapproved places. This has resulted to proliferation of mushroom early learning centres in the country. Some of the centres are located in flats in residential buildings, batchers and back yard of churches. They see early learning centres as money making ventures and not to give the child quality start in life. Such centres lack spaces because of the high population density. If this is allowed to continue, the attainment of sustainable growth and development in the child will be a thing of the past .Through this, the expected achievement of a sustainable play curriculum which comes through having low population density will not be actualized. There is need for the Government to re activate the inspectorate divisions in charge of early learning centres in the ministry of education,

both state and federal to ensure that minimum standard is maintained.

The frequency of specific forms of play differs across culture and this is influenced by the population density and spaces available. In support Papilla olds & Feldman, (2004) indicated that the population density, time and play spaces affect the nature and quality of play children engage in. In our African settings, children like to get involved in traditional games which are an outdoor game which involves moving around, singing, jumping, clapping of hands, running around and shouting. They create different cultural games and this is greatly determined by the amount of spaces available.

The out door game activities children play, emerge from their prior cultural experiences they came to school with. In support of this ,different researches (Bedrova and Leong 2005 Papalia olds &Feldman, 2004 Mutemri and Mugwen 2005), showed that the peoples culture is transmitted through play and that a people's culture is an important survival strategy passed down from one generation to another through processes of enculturation and socialization. When they get involved in such games, they enjoy it and learn a lot from it .In support of this, Tassoni and Hucker (2000) say that children remember best the free play they have created themselves, because it had meaning for them. It is also often the case that such play will hold a Childs interest for longer than any activity organized and controlled by an adult.

When the population density is low, children make use of available spaces for playing of choice games. The early learning providers should understand that children high or low population density affect the quality of play which in turn positively or negatively impact on sustainable development. If they are aware of this, it will help them in designing play spaces in early learning centres.

#### **Effects of Space on Quality of Play**

The population density which affects the play spaces also affects the quality of children's play .When the available play space is insufficient ,the provision of quality play materials will be inhibited , thereby the quality of play children will get involved in will be affected .When play materials available in early learning centres are few due to space, children's choice of kind of game activities will become limited .There should be facilities for different games activities children will get involved in ,such as climbing, building, swinging, lifting and others .Such facilities will help children get involved in choice games that are of quality standard . It is only when children get involved in quality playing activities that attainment of sustainable growth and development will be possible.

Ample equipment is essential if the outdoor programme is to make rightful contributions to children's over all development and such materials should be provided in line with the developmental ages of the children ( Oravec 2000-2001). Literatures (Papalia et al, 2004, Dempsey and Frost, 1993 and Oravec 2000-2001) show that children need wide play environments that are spacious and enabling.

The high population density with resultant effect of poor play spaces in most early learning centres in Nigeria, led to pupils' submitting themselves to different problems. For this reason , the interaction that take place during playing of out door games is denied and this may develop to another form of unacceptable play activity and emotional encounter such as fighting, pushing one another, this equally result to bullying of weaker ones in the bid to fight for turns to play with available play materials.

Moses and Patria (2002) are of the view that children space is very significant. It is so because it concerns physical and socio - cultural practices involving making friends and relating with others. Pursuant to the above, it could be viewed that, it is the children's population density and their spontaneous play that facilitate development. For children's development to be holistic there is need for less population density, adequate play space and sufficient quality play materials.

**STATEMENT OF THE PROBLEM**

Play is an essential part of every child's life and Play could be carried out indoor or out door .Outdoor play helps in physical, emotional, intellectual, social and spiritual development of the child. The potentiality of out door play to achieve the attributes stated above depends greatly on the play spaces available which is determined by the population density. This means that if the child is denied access to a stimulating play

space because of population density, the holistic development of the child will be affected. To avert this foreseen problem, the researchers carried out this study which investigated the impacts of population density on the space for playing out door games in Awka urban area: A case study of three (3) early learning centres. The findings of the study will help to ensure an attainment of sustainable growth and development in the child .

**RESEARCH QUESTIONS**

- (1) How does children population density affect space for playing outdoor games in Awka Urban Early learning centres?
- (2) How does children population density affect the quality of out door play?

**METHODOLOGY**

This study was limited to all the nine (9) early learning centres in Awka urban area of Anambra state, distributed under three (3) sub zones .Using structured random sampling, one learning center was selected from each sub-zone making a total sample size of three (3) learning centres. A qualitative case study research design involving observation of 50 randomly selected 4-5 yr old children playing at the three (3) learning centres was used . The schools were tagged A, B and C The researchers observed the children playing in the available spaces in their various learning centres and this was done with a check-list that captured the site of the school, population density of the school, space arrangement, available play materials, and school culture.

**RESULT**

Researchers' observation result on the effects of children population density on space and quality of outdoor play to answer the research questions.

Item	School A	School B	School C
Site of the school	Located in two flats attached to a private residential building.	Located at the backyard of a church building in a batcher.	Located within a university as a demonstration learning centre
Population density	Very high	Very high	low
Space arrangement	No such arrangement.	No such arrangement	Well planned play spaces.
Play materials available	They have 2 swings, 1 slide , 1 drum used as a tunnel and 3 old tires The play materials were not arranged according to the developmental ages of the children.	2 Swings, 5old tires, 1 long fell tree trunk, construction materials and 1 slide. The play materials were not arranged according to the developmental ages of the children.	They have 5 swings, 1 fell tree trunk, 3 slides, 1 merry-go-round and 4 drums used as tunnels The play materials were arranged according to the developmental ages of children.
School culture .	Attention was given more to academic pursuit than social interaction .The children were playing unguided	Attention was given more to academic pursuit than social interaction. The children were playing unguided	There was a balance between play and academic work. There was a combination of academic and social interaction. The children were being guided by some staff while playing .

The table above shows that centres A and B faced some serious problems under different aspects considered in the study, unlike centre C .

**DISCUSSIONS**

**Site of the School (Location)**

The school A was sited in two flats within a residential building .Part of the little space available in centre A was used as car park by the occupants of

the building and the children were cramped in the remaining little space. centre B was located behind the church building in a long batcher, a small gate linked the school compound to the church compound. The children do not have free access to the church open space because of the fence. This leaves the pupils with insufficient space to play their outdoor game activities which involved running around and other kinds of movements.

Centre which is attached to a demonstration primary school located within a University has a good standard play space which enabled the children to play different outdoor games. This is supported by Papala et al (2004), Dempsey Afrost (1993) and Oravec,( 2002) who posit that children need wide play space that are spacious and enabling to play outdoor games. They further added that lack of space like in schools A and B above, produce another kind of play which may result to pushing, pinching, fighting and eventual bullying of weaker ones in the bid to struggle for turns. This does not allow the children to develop their muscles. Outdoor game activities has been seen to improve children's memory, language development and cognitive perspective and talking abilities (Ormrod, 2006).

#### **Population Density**

Out of the 3centres visited, centres - A and B have high population density. This made the children not to find enough space to engage in quality outdoor game activities. The children in the two centres were cramped in small play space which did not allow them to run freely without hurting each other. For this, the centres concentrated more on academic exercise and indoor games than outdoor games. The early learning centre C attached to University demonstration primary school has low population density. This gave them opportunity to have enough play space per child and play materials for engaging in different quality outdoor game activities.

#### **SPACE ARRANGEMENT**

As a result of high population density followed by limited space facing two of the centres A and B; there was no special space arrangement according to developmental age of the pupils. This was contrary to school C where they have marked out play space for children with appropriate play facilities because of their low population density. It gave the educators opportunities to arrange things appropriately as needed and children had places to play any form of desired play.

#### **AVAILABLE PLAY MATERIALS**

Insufficient play spaces in the two centres, A & B caused by high population density, few play materials were put in place while centre C has well planned and sufficient quality play materials placed according to the developmental ages of children for accessibility.

Dempsey Frost (1992) posits that the quantity of play materials available to the child correlated with the child's development. They further added that undesirable behavior increases with the reduction in play materials. Adequate play materials in the schools are an advantage. Such materials will support all round development of the child.

Ample equipment is essential if the outdoor programme is to make rightful contributions to children's over all development and such materials should be provided in line with the developmental ages of the children ( Oravec 2000-2001).

#### **School Climate**

The school climate or culture in centres A and B observed, showed that the centres were more academically oriented and there was less social interaction among the pupils due to high population density that resulted in insufficient play space. Children were playing unsupervised. This is wrong for according to Bedrova and Leong (2005), children create their own world during play and therefore should be given enough time to interact with nature and with one another. In centre C children play was connected to academic work because some of the staff was seen directing the children. Through these interaction children develop their languages which help them in their learning (Papalia et al, 2004).

#### **FINDINGS**

The major findings of the study suggest that children's high population density resulted in limited play space in centres A and B. As a result of problem of space, the provision of sufficient quality play facilities became a problem and this invariably affected the quality of outdoor play activities in the two centres. This finding is contrary to researches from Bedrova and Leong (2005), Papalia olds &Feldman, (2004), Mutemri and Mugwen (2005), which showed that children need space for playing of outdoor games and the research, supported the findings in centre C where low population density helped in creating more spaces. This gave the educators the chance to provide sufficient quality play facilities that enhanced quality outdoor game activities the children engaged in. Through getting involved in quality game activities, the children will attain a sustainable growth and development expected in them. In addition lack of knowledge on the part of the caregivers on the effect of population density on conducive play space and on the quality of play was also discovered.

The researchers discovered also that the cause of variations in standard is because of ineffectiveness of the supervisory body or directorate concerned for quality control in early learning centres.

## CONCLUSION

With the proliferation of early learning centres in flats within residential buildings and batchers in the country, the play spaces available will be highly limited. This will consequently affect the quality of outdoor games played by the children. If this is allowed to continue, the sustainable growth and development in the child through play will hardly be attained. The researchers therefore concluded, that to ensure an achievement of a sustainable play curriculum for the early learning centres in the country, quality play materials and adequate play spaces that will ensure low population density must be provided by the care givers.

## RECOMMENDATIONS

Based on the findings of the study, the researchers recommended that:

1. Since low population density, ideal space and sufficient play materials help the children to achieve sustainable play curriculum in early learning centres, providers of early learning centres should be educated by the Ministry of education, both State and Federal on the value of setting up an enabling environment which aids and sustains children playing of outdoor games.
2. The Government through the Ministry of Education both State and Federal should organize annually workshops for early care givers on young children's play curriculum and contemporary play issues in setting up early learning centres and on the effect population density has on children quality of play and its impact on sustainable development.
3. The Government should activate its Inspectorate Divisions in the Ministry of Education in charge of early learning centres to drive internal quality control and to ensure the attainment and improvement of set standard.

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