

ASSESSMENT OF BEHAVIOUR AND ATTACHMENT OF CHILDREN TO PUBLIC SPACE USAGE IN NIGERIA

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Abstract— Every child in a city has connection with their environment and its public space. The space influences children's behaviour, knowledge, attitudes and cognition. Incontrovertibly, informal learning takes place in the public space in cities of Nigeria. The study explores behaviour and attachment of children to traditional public space in Ilorin city of north-central in Nigeria. Data were collected through a survey with 500 children age 6 to 12 who were actively utilising traditional public spaces in Ilorin. The instrument that was used to measure the influence of traditional public space on children's well-being had 12 items, and was highly reliable with Cronbach's alpha of 0.88. This implies that the instrument was reliable. Data were descriptively analysed using percentage, frequency, mean, standard deviation, bar charts. Results showed that children had strong attachment to their traditional public spaces, and this sense of attachment influenced their behaviour in traditional public space. Though, some of the traditional public spaces are unkempt, unhygienic and inhospitable to children utilising them. Therefore, the policy makers and profession should develop and revitalise traditional public spaces in Ilorin city so that children can fully benefit from its environment.

Index Terms— Children, Behaviour, Public space, Cognition, Attachment.

1 INTRODUCTION

THE availability of safe public space supports healthier physical and psychological development of children.

Growing up in a city where there are many accessible and conducive open public spaces is enjoyable. Evidence shows that children who have better access to such places are more likely to be physically active, and less likely to be overweight, compared to those living in neighbourhoods with less access to such facilities [25], [21]. According to World Health Organization, the living conditions in the urban environments are key to well-being and quality of life of its inhabitants. The lack and poor quality public space in urban neighbourhoods constitutes a serious restriction for the well-being of the inhabitants. Likewise, as it does not support developing healthy life-styles, like spending time outdoors, walking and playing. Spending time outdoors reduces the exposure to indoor air, which is often polluted by the use of different artificial materials. Thus, having direct contact with nature tends to be a major challenge for children growing up in cities due to encroachment to the public space. These together with vague standards and guidelines for public space, resulted in low quality of new residential developments. Inadequately, communal public spaces to accommodate the outdoor activities in cities of Nigeria. However, findings from the national housing inquiry in Slovenia from 2005 shows that lack of safe space for children's playing and recreation are the second most important concern regarding living environment after air pollution [17].

Essentially in Nigeria, every child associate with their socio-cultural surrounding and its public space. The space influences children's behaviour, knowledge, attitudes, intelligence and perception. Consequently, informal learning takes place in play-fields and yards. These are the socio-physical environment where children meet and exchange ideas at the informal levels. Existing literature revealed that socio-physical space is fundamental for the developments and modifications of the children's social behaviour. Interestingly, environmental and psychological theories suggest that socio-environmental contexts determine and shape children's attitude and behaviour. Also, literature showed that the planning and design of outdoor environment should be done to create enabling environment capable of developing positive social behaviour in children. These processes are fundamental in aiding attachments of children to a place. Thus, this study examines behaviour and attachment of children to traditional public space in Ilorin city, Nigeria. The key research questions that guide this study are: (i) what are the patterns of children's behaviour in traditional public space in Ilorin, Nigeria? (ii) what is the level of attachment of children to traditional public space? (iii) What is the relationship between children's behaviour and their attachments to traditional public space?

2 LITERATURE REVIEW

The concept of public space was, first used in 1833 by committee of public trail in London [21]. Public space includes public parks, recreational ground, underdeveloped natural landscape, neighbourhood spaces between buildings and urban space established for public use and access [19]. It refers to the part of the three-dimensional void that is not occupied by man-made features constructed for spatial enclosure [4]. Public space could also mean open spaces or outdoor areas that allow for spontaneous socio-economic, political, religious and cultural activities [18]. For examples Eagle square, Millennium Park and Durban Neighbourhoods' Park in Abuja, Nigeria are multi-functional space that can be used for children party and visual exploration for many people. In addition, public space is conceived as a place where members of the community gather and engage in social interactions and communication without any hindrances [15]. As social beings that need constant social interactions, public space fulfils the human needs of the people [30]. Also, public place is seen as outdoors that attract people for passive recreations [20]. In residential areas, the open spaces around and between residential buildings are only meant for access and use by the residents [25].

As noted by Nasution and Zahrah, [21], both physical and non-physical factors determine the success of public open space in terms of the satisfaction of the basic human needs. In addition, the authors stressed further that public space must have the following qualities. These are: (i) accessibility; (ii) socio-cultural activities; (iii) comfortability; (iv). Good images; and (v) sociability. Public space can be said to have been successful if it accommodates various socio-cultural, economic and political activities and needs unique to a specific community or group. To Campos [8], public space can be measured in terms of the availability of the recreational facilities rather than social activities within it. The value and usability of public space is determined by its architectural design [3]. Many studies indicated that development of the sense of attachments to open spaces by their users is greatly predicted by its physical design and its architectural characteristics [3]. The physical and architectural qualities defined the attachment to the public spaces. These features are discussed as follows:

- a) Site development features included the size of the open space, its density, block arrangements, layouts, ordination and locations;
- b) Architectural design features included styles, designs and quality of the buildings surrounding public spaces, aesthetic features, density, shape, height and volume of these buildings. Materials used for the buildings as well as façade [31].
- c) Natural features such as waterfalls, lagoons, hills or mountains, plains, walking green spaces;
- d) Cultural features such as relics, monuments, statues, fountains, flowers, plants myths, living conditions of the people.
- e) Access-related characteristics, such as traffic situation,

are equally vital. Also, traffic-segregation areas would attract children to public spaces;

- f) Facilities such as playgrounds and sports-setting and other basic communities preferred amenities for children are community gathering space, playground, and sports facilities. These facilities must be provided for ensuring the attachment of the children to the place.

The development of sense of attachment to a place is influenced by social interactions, activities and behaviours of people within the public space setting [23]. The qualities and facilities in an environment determine the attachments and connections of people to the area [27]. Guthey et.al [13] opined that the daily activities of people connected to a place are the major predictor of people's attachment to a place. In addition to this, what people know or read about a place as well their real live experiences determined their senses of place.

Studies revealed that attachments of children to urban place is fundamental for their well-being and sustainability [21]. Children have emotional and cognitive connections and bonding to their accustomed or usual public spaces. Accustomed and conducive public space is crucial in defining and developing self-identity as well as creating and ensuring sense of security and stability for the children [26]. Similarly, attachment to a place generate social bonding and rootedness which is vital for healthy development of children [25]. Therefore, secured public spaces for the children, psychological disturbances may result. Children may become traumatized for lack of place to display and express their sociability and psycho-social instincts. Green [10] argued that accessible and sociable public spaces are essential for building and maintaining successful relationship and social interactions among children in urban areas. In residential areas, public spaces are required for nurturing children attachment to their physical-environment. This is because it aids the development of the sense of self-identity as well as security.

In Nigeria, separation of children from the natural and physical environment has influences on their cognitive and physical developments. Observationally, most children in Nigeria have been isolated from their physical environment as a result of urban growth and development. Many public spaces have been converted to either industrial or residential areas in the country. Given the rates of urban development in most Nigerian cities, providing good and conducive open spaces for children become problematic for both architects and urban residential designers [2]. As opined by Spencer [26], considering the importance of public spaces to the children's social well-being, researchers have called for the consideration and inclusion of children's in urban design and planning. Children want a place surrounded by nature such as open grass to run around, play football, ride bicycles and other physical activities. Children need a place to demonstrate their creativeness and explore their potentials. They appreciate a place where they can create their own play space. They want place where they can fulfil their physical and cognitive needs. As noted by Groves and McNish [12], children need natural space which has natural features that can increase their

physical and creative play such as mud, grass, and trees.

To the best of researcher's knowledge, there is no empirical study on the behaviour and attachment of children to traditional public space in Ilorin city, Nigeria. While there have been many studies on this topic in other areas, especially in developed countries, there are few studies on it in developing or underdeveloped countries. Even, the few studies on this topic in developing and underdeveloped countries were on public space and public open space; not on traditional public space. It is against the backdrop of this major gap in literature that this study examines the behaviour and attachment of children to traditional public space in Ilorin city, Nigeria.

3 THEORETICAL FRAMEWORK

This study is anchored on two theories: attachment theory and social learning theory. While social learning theory was used to explain how children learn certain behaviour in the traditional public space, attachment theory was used to explain the sense of attachment of children to traditional public space. Attachment theory is one of the dominant theories in developmental psychology. According to this theory, attachment is essential for personal development. The ability of an individual to form emotional and physical attachment with another individuals or places provides sense of security and safety. A psychologist, John Bowlby, introduced and used the term attachment to explain the formation of attachment as well as its importance to social well-being. Mary Ainsworth discovered the existence of attachment behaviour in her study while testing its theoretical relevance. This enabled her to further develop the attachment theory [22]. According to environment psychologists, there are three components of place attachment. These are: (i) cognitive; (ii) affective; and (iii) behavioural components. Cognitive component deals with the beliefs and perceptions about a place. Affective component deals with emotion and feeling about a place. Behavioural component relates to the commitment to a place, and involvement of children to a place could bring about attachment to the place.

Another theory applied in this paper is social learning theory developed by Albert Bandura in [6]. According to this theory, people learn through observation, imitation and modelling from one another. It is referred to as mixture of behaviourist and cognitive learning theories. This is because it encompasses both social and psychological concepts such as attention, memory and motivation. According to Bandura [6], most human behaviour is learned observationally through modelling. Moreover, in observing others, one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action. Bandura strongly believed in reciprocal determinism. This implies that the world and individual's behaviours are mutually causative in human [6].

Figure 1: Social Learning Model (Bandura, 1977)

The relevance of these theories to this paper is quite evident, attitude of people about a place or space starts from the young age, it is a process of child's socialization. The experiences of a place, definitions, meanings and interpretations of the place by children, can shape the attitudes of children in a place as well as their attachment. Children are more likely to attach to a place where they experience sense of safety and protection [31]. Hence, children are more likely to attach to place that satisfy their basic human needs such as security, social affiliation, express their creativeness and explore their potentials. According to Ellis [10], children feel happy and secure in a place where they can easily see their mates and manipulate their surrounding areas. Spencer opined that places with high qualities and furnished facilities attract children from far and near. According to Shabak et al., [25], places that allowed children to escape from social pressures where they could express their feeling freely and have a control became their favourite places.

4 METHODOLOGY

This Study adopted survey and interview methods. Survey and interview methods have been described as the most of the effective and efficient methods to examine the perception of the people on the connection between behaviour and attachment of children to public space [22], [28]. In this study, the data were collected through the administration of questionnaire. This section describes the study area, data collection (questionnaire), methods of data analysis. Administration of questionnaire was done between March 1 and June 4, 2019. The respondents that agreed to participate in the study were given the questionnaires to fill. The researcher administered the questionnaires to 500 respondents in Ilorin city through the help of 10 researcher assistants. Efforts were made by the researcher and her assistants to capture as many

compounds as possible across the city. The respondents were motivated to participate in the study. For those who could not fill the questionnaire because of their ages, the researcher and her assistants helped them to fill the questionnaires. The researcher and her assistants read the questions in the questionnaire to them, and then asked them to tell them the appropriate responses. The questionnaire was close-ended with multiple options from which the respondents can pick just only one answer. The first part of the questionnaire asked respondents about their socio-demographic information such as sex, age, marital status, education level, and so on. The other sections were on the substantive questions. In the end, a total of 458 questionnaires were completed by the respondents. This represents 91.6% of the total questionnaires administered.

5 STUDY AREA

The data used in this study were collected in the city of Ilorin. The city of Ilorin is a confluence of cultures, populated by Yoruba, Hausa, Fulani, Nupe, Baruba, and other ethnic. The indigenous people's culture is predominantly Islamic, as most of the Islamic festivals are greatly celebrated compared with anywhere in the country. At present, the city of Ilorin cuts across three (3) Local Government Areas namely Ilorin West, Ilorin East and Ilorin South Local Government Areas. The evolution of Ilorin began with the early traditional areas built up around the township centre [1]. The trend revealed that the city has four major residential districts which are clearly identifiable on the urban landscape, these are the traditional/core areas such as Oja-Oba, Okelele which is the major study area, the transitional/mixed residential zone such as Taiwo, Gaa-Akanbi, the Government Residential Areas (GRA) and the modern well planned housing estates such as Irewolede, Adewole housing estates. The creation of Kwara State in 1967 and the choice of Ilorin as the state capital had resulted in its rapid population increase and area expansion. Ilorin city as one of the least developed state capital among the state capital created in 27th may 1967, after independent namely Lagos, Kaduna, Kano, River and Cross-river states.

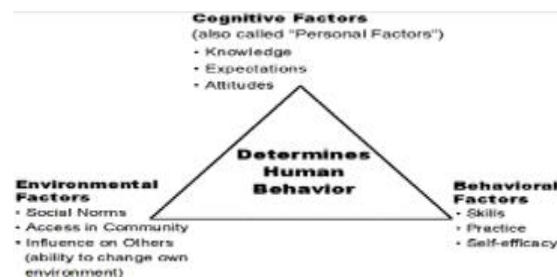


Figure 2: Map showing Ilorin City, Nigeria
Source: Google map

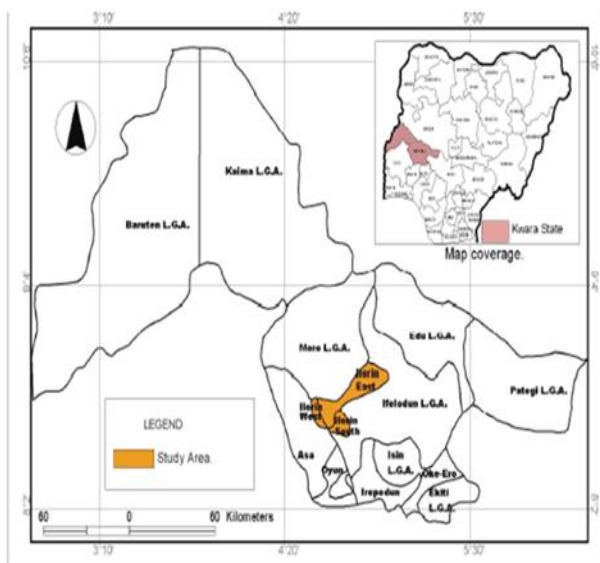
6 FIGURES AND TABLES OF ANALYSIS

The preliminary analyses were done to examine the normality of the variables behaviour, attachment and traditional public space. The responses to the questions on behaviour and attachment of children to traditional public space in Ilorin city were normally distributed. Descriptive analytical techniques, such as percentage, frequency, bar charts, histogram, and polygons were used to analyses behaviour and attachment of children to traditional public space in Ilorin city, Nigeria. The following section presents the results of the analysis.



Figure 3: How often do you visit traditional public space

As shown in Figure 3, 33.0% of the respondents visited traditional public space once per week; 42.8% of the respondents visited traditional public space more than once per week; 14.4% of the respondents visited traditional public space once per fortnight; while 7.0% of the respondents visited traditional public space once per week. The results revealed that the respondents visited traditional public space, and this further justified the importance of traditional public space for children's well-being.



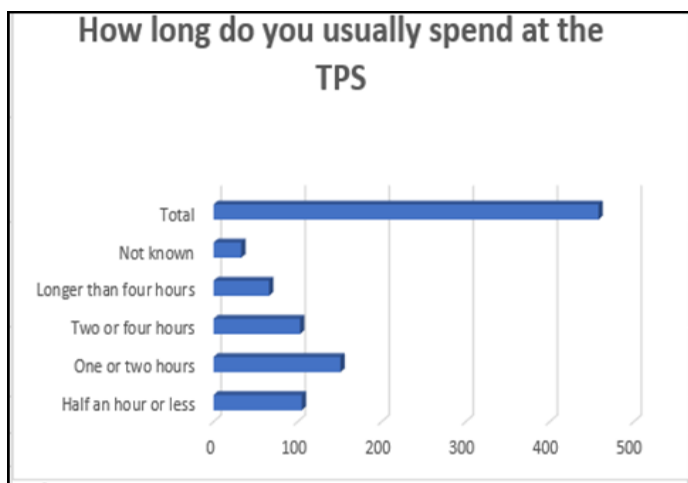


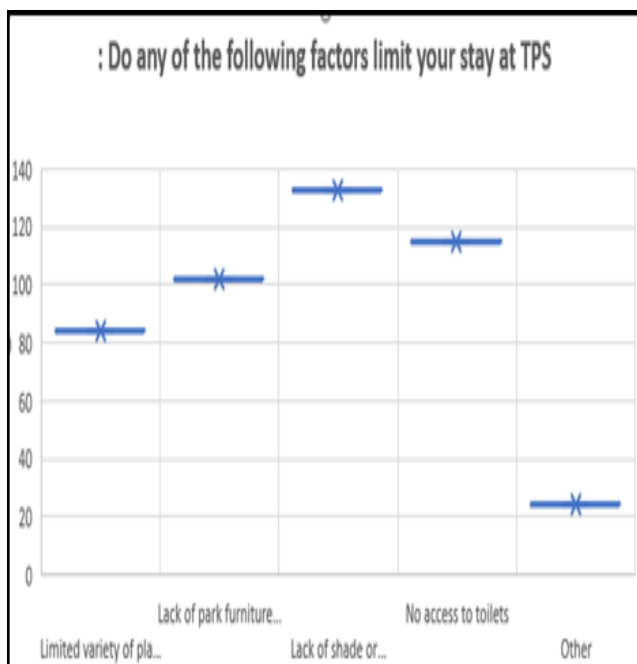
Figure 4: How long do you usually spend at the TPS

As shown in table 4, 22.9% (105) of the respondents usually spent half an hour or less in traditional public space; 33.0% (151) of the respondents spent one or two hours less in traditional public space; 22.5% (103) of the respondents spent two or four hours in traditional public space; 14.4% (66) of the respondents spent longer than four hours; while 7.2% of the respondents did not know exact time they spent in traditional public space. The results revealed that respondents spent considerable number of times in traditional public space.

Figure 5: Factors limiting access to traditional public space

From figure 5, 18.3% (84) of the respondents said that they experience limited variety of play opportunities in their traditional public space; 22.3% (102) of the respondents mentioned that they experienced lack of park furniture such as seating in their traditional public space; 29.0% (133) of the respondents said that they experienced lack of shade or shelter in their traditional public space; 25.1% (115) mentioned that they were challenged in their traditional public space for no access to toilets; while 5.2% (24) of the respondents mentioned other factors that limit their stay in their traditional public space. The results revealed that limited variety of play opportunities, lack of park furniture such as seating, lack of shade or shelter and no access to toilets were mentioned as the factors that limit respondents' stay at the traditional public space.

Table 1: Means and Variance of variables measuring the effects of traditional public space (TPS) on Behavioural Development of children



S/N	Variable	N	Mean	SD
1	Traditional public space gives sense of belonging	458	1.81	1.041
2	The designs of the traditional public spaces improve the sense of attachment	458	2.09	0.986
3	TPS allows children to understanding the social norms and expectations	458	1.96	1.027
4	TPS enhances the development of the consciousness	458	2.26	1.161
5	TPS enables the children to form their own identity	458	2.01	1.070
6	TPS allows children to develop at their own pace	458	2.36	1.267
7	TPS fosters sense of unity among children	458	1.84	1.101
8	TPS encourages the development of sense of responsibility	458	2.12	1.084
9	TPS provides an avenue for continuous socialisation	458	2.06	1.106
10	TPS provides an opportunity for children to discover and develop their potentials	458	2.21	1.179
11	TPS facilitates the exchange of ideas and ideology	458	2.07	1.110
12	TPS allows the exchange of ideas and ideology	458	2.12	1.184

7 RESULT AND DISCUSSION

The main purpose of this study was to examine the behaviour and attachment of children to traditional public space in Ilorin city, Nigeria. From the above results, traditional public space allows children to develop at their own space was ranked first with the means score of 2.3603 and standard deviation of 1.26695. This implies that traditional public space improves children's well-being when it allows children to develop at their own space. This was followed by "TPS enhances the development of the consciousness". This denotes that if traditional public space enhances the development of the children's consciousness, the children's well-being is likely to improve. The third important factor is "TPS provides an opportunity for children to discover and develop their potentials" with the means score of 2.2140 and standard deviation of 1.17880. This implies that if traditional public

space provides an opportunity for children to discover and develop their potentials, their well-being is more likely to be enhanced. The fourth factors are "TPS encourages the development of sense of responsibility" and "TPS allows the exchange of ideas and ideology" with a similar means score of 2.1157 and different standard deviations of 1.08386 and 1.18420 respectively. Going by the results, the most activities that the respondents preferred were standard (such as swing/slide/spin/climb) and imaginative (such as *Alo*/performance areas). This finding agreed with the study of Christian et al., [9]. Christian et al., [9] conducted a study on the importance of public space on the children's mental health and early development in a developed society. The study found that the activities that children engaged in the public space had influence on the mental health and early development. The finding also agreed with the finding of Valentine [29] on 'public space and the culture of childhood where the author concluded that public space determined the space and nature of childhood experience.

The results revealed that respondents spent considerable number of times in traditional public space. This is in tandem with the finding of Bartlett et al., [7]. The study of these authors revealed that children of the urban poor spent almost all their time in the street. As the study of Bartlett et al.[7], revealed, children of the urban poor considered streets as public space where they can stay and move around. Also, Richardson et al., [24] found that public and private natural space played a fundamental role in the social, emotional and behavioural development of children in Scotland provided that the children spent considerable number of times in public and private spaces. The study found that limited variety of play opportunities, lack of park furniture such as seating, lack of shade or shelter and no access to toilets were mentioned as the factors that limit respondents' stay at the traditional public space. Security threat has been a major factor limiting children to indoor space, it also impedes on the child's confidence when such child is exposed to public space. These findings agreed with the findings of Spencer [26]. Spencer [26], in his study on children and their environment, concluded that the inadequacy of the required materials, both physical and non-physical, would hamper the stay and even quality of stay of children in public environment (space). Similarly, the study of Goldstein [11] revealed that limited opportunities to play in the public space because of the lack of or inadequacy of the basics might result to unsatisfactory socio-emotional development of children.

On the relationship between behaviour and attachment of children to traditional public space in Ilorin city, Nigeria, the study found that traditional public space allows children to develop at their own space was ranked first with the means score of 2.3603 and standard deviation of 1.26695. This implies that traditional public space improves children's well-being when it allows children to develop at their own space. This was followed by "TPS enhances the development of the consciousness". This denotes that if traditional public space enhances the development of the children's consciousness, the children's well-being is likely to improve. The third important factor is "TPS provides an opportunity for children to discover

and develop their potentials' with the means score of 2.2140 and standard deviation of 1.17880. This implies that if traditional public space provides an opportunity for children to discover and develop their potentials, their well-being is more likely to be enhanced. The fourth factors are "TPS encourages the development of sense of responsibility" and "TPS allows the exchange of ideas and ideology" with a similar means score of 2.1157 and different standard deviations of 1.08386 and 1.18420 respectively.

The above findings agreed with the findings of Amoly et al., [5]. Amoly et al., [5] reported that green and blue spaces facilitated the behavioural development of schoolchildren in Barcelona. This finding of Amoly et al., [5] underscores the relationship between the quality of public space and behavioural development of schoolchildren. It also in tandem with the theories adopted in this study. For instance, the attachment theory argues that children behaviour are mostly influenced by their attachment to a particular public space in Nigeria cities. However, Bandura's social learning theory did not include attachment which is a major interface in children behaviour in public space. Meanwhile, based on the theory of attachment and Bandura's social learning theory, this study comes up with a relationship diagram between the two theories that reinforced children attachment in public space in Nigeria cities. The space attachment influences their behaviour and cognition which is the main themes of the two theories.

8 CONCLUSION

The main purpose of this study was to examine the behaviour and attachment of children to traditional public space in Ilorin city, Nigeria. The study looked at how traditional public space influences behavioural development of children in Ilorin city. The results of this study showed that traditional public spaces in Ilorin city are not only historical sites but also avenues for the behavioural and emotional development of children. However, policy makers not have been showing concerns or giving attention to traditional public spaces, perhaps because they are oblivious of the importance of them. Most of the traditional public spaces that the researcher observed and visited were unkempt, unhygienic and inhospitable for children. Therefore, findings of this study, can be used by the policy makers, architects and urban planners to develop and revitalize traditional public spaces in Ilorin city so that children can fully benefit from their traditional public spaces.

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