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Floor Level Characteristics and Students' Perceived Safety in University Halls of Residence: A Case Study of The University of Lagos, Nigeria

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ABSTRACT

The design of the physical environment has been identified as one of the major predictors of safety from crime particularly in students' halls of residence. Previous researches on student housing have not adequately addressed how the physical design features in the halls of residence affects the safety of the occupants. This study examines the floor level characteristics of universities' halls of residence in relation to students' perceived safety. A study of students' halls of residence within the campus of University of Lagos was carried out using both observation checklist and questionnaires administered on 252 respondents living in 7 halls of residence. The study showed that the respondents living on the higher floor levels felt safer because they encounter fewer strangers. Also the result indicated that students' perceived safety correlated negatively with the corridor length. The study therefore identified floor height and corridor length as predictors of perception of safety that should be considered in future design of universities' halls of residence.

Key words: Crime, Defensible space, Floor level, Halls of residence, Perception of Safety

Aims Research Journal Reference Format:
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1. BACKGROUND TO THE STUDY

Crime in residential environment is a global phenomenon; however most researches on crime issues have been done in public multi-family dwelling neighbourhoods (Newman, 1996; Suk, 2006; Okunola, 2015), with less emphasis on students' hall of residence in the Universities. However safety from crime is now a growing concern on university campuses (Ratti, 2010) this may be because the prevalence of crime in students' halls of residence poses a great challenge to the attainment of a safe, secure and academically supportive environment.

Safety has been linked with the quality of the built environment and recognized as a basic human right requirement that is necessary for the attainment of a habitable and conducive academic environment. Findings by Weidemann, Anderson, Butterfield, & O'Donnell (1982) and Najib, Yusuf, & Osman (2011) asserted that safety is a critical indicator in measuring residential satisfaction because how satisfied occupants are with their residential environment is predicated on the safety of such environment. As public building, students' halls of residence usually accommodate a large number of occupants, hence this exerts tremendous pressure on the University hall management because of the need to provide a safe living and learning environment where students would have no cause to fear for the safety of their lives or possessions resulting from the likely occurrence of crime in their halls of residence. Hence an understanding of the physical environment of students' halls of residence and how it affects students' personal safety becomes a critical factor (Abdulhafeez, 2014; Ubong 2007; Bamiro et al. 2010).

1.1 Theoretical Background

Defensible space theory provides the tool for exploring means by which design can be used to reduce crime. It postulates that defended spaces convey a very strong feeling that residents self-police their environment such that those spaces are under residents' control, so that intruders can perceive that they are being observed and hence can be easily identified and apprehended, and by so doing, they perceive the area as not suitable to commit crime. While at the same time, residents also perceive the area as being safe because it is less prone to crime.

The study of crime, fear of crime and people's perception of safety in their residential environment are inter-related and the complex ties in the relationship are sometimes not predictable. Studies have shown that even when crime occurrence is low, fear of crime has been found to be high (Shaftoe, 1998 cited in Okunola, 2010). It suggests therefore that perception of safety is vital, as it provides a subjective dimension to understanding safety issues in student residential environment.

Perception engenders the way people recognize and organize sensory information and their interpretations as reality enables them give meaning to their environment. This involves both the biological as well as the psychological processes of how the information is used in the interaction process to give meaning and this affects how they relate with the environment. Perception is therefore a useful tool in investigating peoples feeling as well as understanding of their environment (Moore, 1979; Demuth, 2013).

1.2 Defensible Space & Design Characteristics of Floor level in Students' halls of residence

The conceptualization of defensible space in students' halls of residence is based on territorial control that residents have over the floor level where their rooms are located as well as the surveillance opportunities available on such floor level. Amole (1997) identified floor level as one of the levels of environment in students' Halls of residence; others being the bedroom, the block and the hall. These levels of environment are hierarchal in nature and determined by the concepts of privacy, personal space and territoriality. The floor levels function as a secondary territory; whereby a small group of resident students are made to share the corridor and bathroom facilities together. This is expected to create opportunities for increased social interactions amongst them and thereby forming social bonds among co-residents on the same floor thus helping to support and facilitate territorial control over the floor. And in so doing enhancing the safety of students on the floor level where their rooms are located.

Plate 1: Moremi Hall, University of Lagos
Source: Author

Plate 2: Jaja Hall, University of Lagos
Source: Author

A vital consideration put forward for the creation of defensible space was the number of units sharing a collectively defined territory. Studies have affirmed that limiting the number of people sharing a space enhances territoriality (Newman, 1975; Okunola, 2015). The subdivision of the halls of residence at the floor level, from the number of bedroom units per corridor on each floor, to the number of bedrooms sharing a common facilities such as the bathroom are all important in defining territories in students' halls of residence. Though corridors on each floor provide horizontal access for residents to their rooms, the length of these corridors however vary and most times determined by the location of the service-cores. Short corridor hall type was defined by Amole (2007) as those that have five bedrooms or less between the service-cores and the long corridor types as those with ten bedrooms or more between the service-cores, not taking cognizance of the room size. Baum et al (1978) however looking at it from the perspective of crowding, classified long and short corridors in terms of the number of people using the corridor, hence termed long corridors as those having 36-40 people per floor and short corridor as those with 20-22 people per floor. The numbers of bedroom units grouped together on each floor level have implicit consequences for social organization and territorial influence for the group of students that are resident on that floor levels.

The short corridor hall type tend to create smaller territories for a small size living group to interact and know each other very well by virtue of the smaller number of people that use the shared common facilities and this tend to enhance safety due to the territorial claim and control over the corridor. This is however in contrast to the long corridor type where the large number of bedroom units served by a long corridor results in overwhelmingly large and anonymous people thus making territorial claim difficult

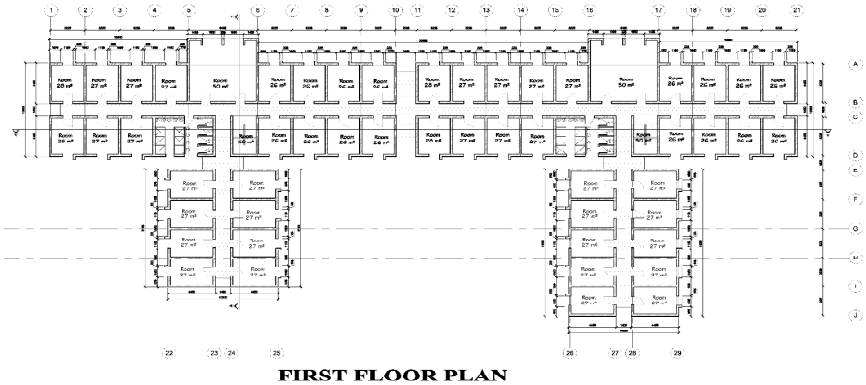

Figure 1: Eni-Njoku Hall - Floor Plan showing the double loaded Corridor

Plate 3: Eni-Njoku Hall – Photograph of a double loaded Corridor
Source: Author

Aside the corridor length, territorial difficulty also result from the loading on the corridor due to the intensity of use, as double loaded corridor serving a large number of people impact negatively on territorial claim because it tends to make the corridor a 'no man area' where strangers cannot be recognised on the corridor. However the design of single loaded corridor where all the bedrooms are exclusively located only on one side of the corridor goes a long way to determine its surveillance potential, that is, the degree of visibility of the activities taking place within the corridor.

The double loaded corridor on the other hand has bedrooms on both sides of the corridor thus obstructing the ability to observe the activities taking place within the corridor from the outside of the building. Newman (1972) observed that little or no crime problem are associated with single loaded corridors, in contrast to the double loaded corridor that account for some 20% of all crime that occurs in the interiors of the building

Research findings show that one of the physical design features of a building associated with safety is the floor height, as studies by Amole (2011) showed that most students prefer to live on higher floor levels that have balcony attached to their bedroom, while Kaya & Erkip (2001) found that students residing in university dormitories feel less crowded on higher floor levels than on the lower floors because fewer strangers tend to reach the upper floors of buildings. The ease of identifying strangers in semi-public spaces on higher floor levels gives the residents on those floors a sense of safety. This perspective is supported by Newman (1996) who contended that lack of residents' control over semi-public areas in addition to creating low social interaction, was also responsible for crime in residential environment.

2. STATEMENT OF PROBLEM

Studies by Anokye & Mohammed (2016) showed that safety and security concerns are significant challenges in student hostels, as cases of theft, robbery, rape and other forms of crime do occur in students' hostel, hence a positive significant relationship was established between students' security concerns and safety in their hostels (Fatemah et al. 2010). However managing crime related issues in universities' halls of residence have been handled from the criminological perspective based on data of crime records that come only after the crime has been committed (Smith & fossey, 1995). The utilization of design to mitigate crime occurrences in universities' halls of residence offers a proactive approach, hence university administrators rather than considering reports of campus crime incidents alone, should also focus on resolving safety concerns from the architectural design perspective (Ratti, 2010; Crowe, 2000).

The underlying principle of place-based crime prevention strategies is the linking of crime with place of the criminal act. Ekblom (1995) canvassed for a shift of focus to the design of the physical environment, whose manipulation has become a tool for crime prevention. Some architectural scholars (Wood, 1961; Jacobs, 1961; Angel, 1968; Newman, 1972) have argued that the physical environment can be manipulated to reduce opportunities for crime and thus invariably reducing threat to safety of life and property. Buildings are designed with purpose-built safeguards or deterrents that may make it difficult for crime to occur. Architectural design features in halls of residence such as building layout, corridor design, floor height, circulation pattern and other building design elements act as latent instruments whose manipulation can provide opportunities for preventing crime and enhancing occupants' safety. While studies have shown that there is a relationship between the physical characteristics of students' halls of residence and the safety of its occupants (Newman, 1972; Smith, 1990; Cozens & Gwyn, 2001). Researchers in the Nigerian built environment have not empirically investigated aspects of physical design characteristics such as the floor level characteristics that can be manipulated to prevent crime.

3. OBJECTIVE OF THE STUDY

The objective of this paper is to find out if there is any correlation between the design characteristics of the floor level of students' halls of residence and the occupants' perceived safety.

4. METHODOLOGY

4.1 Study Area

The University of Lagos was established in 1962 as a residential based institution. There are 13 single-sex undergraduate halls of residence constructed to accommodate students within Akoka main campus of University of Lagos. They consist of 6 male undergraduate halls (Biobaku, El-kanemi, Sodeinde, Eni-Njoku, Jaja and Marierie) and 7 female undergraduate halls (Kofo, Amina, Honours, Tinubu, Fagunwa, Makama and Moremi). However the El-kanemi hall is presently undergoing reconstruction hence its exclusion from this study. There are three categories of halls of residence in University of Lagos based on their morphological configuration. The first category are basically first set of halls built by the University, these are Jaja, Marierie, Amina and Moremi halls which are mainly linear structures linked together at all levels to form a single but partially enclosed structure with short single loaded corridor.

The second set of halls termed 'New hall' are Madam Tinubu, Eni Njoku, Sodeinde , Makama and Faguwa halls, whose floor plans are similar, they comprise of a series of separate 4-storey linear buildings with double loaded

corridors. While the last group Biobaku, Kofo and Honour Halls, also having the same design configuration, which are fully enclosed courtyard structures having long single loaded corridors.

4.2 Sampling Technique

The study adopted a two stage multi-level sampling techniques. These are stratified sampling technique at the hall selection level and systematic sampling at that of the respondents. The 7 halls of residence (Biobaku, Kofo, Jaja, Marierie, Moremi ,Madam Tinubu & Eni Njoku) that constitute the sample for the study were selected based on gender and their morphological characteristics, whereas at the respondent level, systematic sampling was used to select the 280 rooms to be surveyed and questionnaire administered to only one respondent from each of the selected rooms so as to ensure even distribution of respondents across the different floor levels.

4.3 Sample Size

From the total number of 929 rooms in the halls of residence in the study area that make up the sample frame, a sample size of a total of 280 rooms, with one respondent from each room used for this survey. This sample size was derived from the table for the determination of sample sizes (Krejcie & Morgan, 1970). Table 1 shows that out of the 280 questionnaires distributed only 252 of them (91.6%) were returned and used for the data analysis.

Table 1: Distribution of Respondents by Hall of residence

Type	Halls of Residence	Hall population	No. of Rooms	No. of Questionnaire Distributed	/ Returned	% of Total
Male	Biobaku	512	64	30	30	11.9
	Mariere	566	122	40	40	15.9
	Jaja	710	132	40	40	15.9
	Eni-Njoku	760	191	45	32	12.6
Female	Kofo	528	66	30	30	11.9
	Moremi	904	161	50	40	15.9
	Madam Tinubu	770	193	45	40	15.9
	Total	**4750**	**929**	**280**	**252**	**100**

Source: Students' Affairs Unit, University of Lagos.

4.4 Research Instrument

The questionnaire used for the survey was divided into two main sections. The first section was to obtain information on the demographic characteristics of the respondents. The second section required the respondents to indicate their perceived level of safety in their halls of residence. The respondents were asked to score on the Likert scale of 1 to 5 (where 1=Very unsafe and 5= Very safe). The other instruments used to source for data are the architectural drawings and observation checklist that provided information on morphological characteristics of buildings in the halls of residence.

5. DATA PRESENTATION & RESULTS

The data gotten from the survey was analyzed using descriptive statistics and the results presented in form of frequencies and cross tabulations. Chi-square was used to test the level of significance of the relationship between the architectural design features of the floor with residents' perceived safety.

The analysis of the respondent's demographic characteristics is presented in tables 2. It reveals that the respondents were evenly distributed by gender, 56.3% of them were male and 43.7% female. Almost all the respondents (96.4%) are single, with more than half of them (56.2%) within the age bracket of 19 to 21 years. The distribution however show that majority of the respondents are presently in their second and third year of study. The housing attributes also revealed that almost three-quarter of the respondents (74.4%) have at most 12 persons sleeping in their rooms daily, but 70% of them spending at least 14 hours a day in the room. The distribution of respondents according to the dwelling floor levels was fairly even except for the basement level that had only 2.4% of the respondents, the other floors, that is, ground, first, second and third floors had 21.4%, 30.6%, 26.6% and 4.8% respectively.

Table 2: Demographic Characteristics of Respondents [frequency (%)]

Demographic Characteristics	No. of Respondents (%)

Gender		
	Male	142 (56.3%)
	Female	110 (43.7%)
Age		
	16-18 yrs	69 (28.5%)
	19-21 yrs	136 (56.2%)
	22-24 yrs	32 (13.2%)
	25yrs & above	5 (2.1%)
Marital Status		
	Single	243 (96.4%)
	Married	8 (3.2%)
	Others	1 (0.4%)
Level of Study		
	100	42 (16.7%)
	200	79 (31.3%)
	300	86 (34.1%)
	400	33 (13.1%)
	500	12 (4.8%)

Source: Author's Fieldwork: 2017

The study found that the predominant crime that occurs in students' halls of residence in the study area was stealing and break-ins when the occupants are not around in their room and that most of these stealing and break-ins occur in the male halls of residence, 52.8% of the male respondents reported that their possessions are not safe as against 28.5% by the female respondents.

With regard to the degree of perception of safety in the halls of residence, 38.5% of the respondents believe their halls of residence are safe, with 33% of them undecided, but many of them feel safer when alone in the hall during the day than at night time. However when the level of safety was examined at the level of the floor, almost half (49.6%) feel that the floor level where their rooms are located is safe. Out of the 55.8% of the respondents who agreed they often encounter many strangers on the floor level their room is located

In addition, to ensure reliability, an index of perceived residential safety was computed based on seven highly correlated perception variables itemized below which were adapted from Weidemann et al (1982) and Okunola (2015).

- Do you believe this hall of residence is safe from crime
- Do you feel your belongings are safe in your room,
- Do you feel the floor level where your room is located is safe
- Do you feel safe being alone in this hall during the day
- Do you feel safe being alone in this hall during the day
- I would want to remain in this hall for another session because it is safe
- I would recommend this hall to my friends because it is safe

Each of the above mentioned variables was measured on a five-point Likert scale from very unsafe to very safe and the result as shown in Figure 2 revealed a marked difference in the level of residents' perception of safety in their halls of residence as 51.6% of the respondents felt highly safe in their halls of residence with 10.3% of them recording low perception of safety

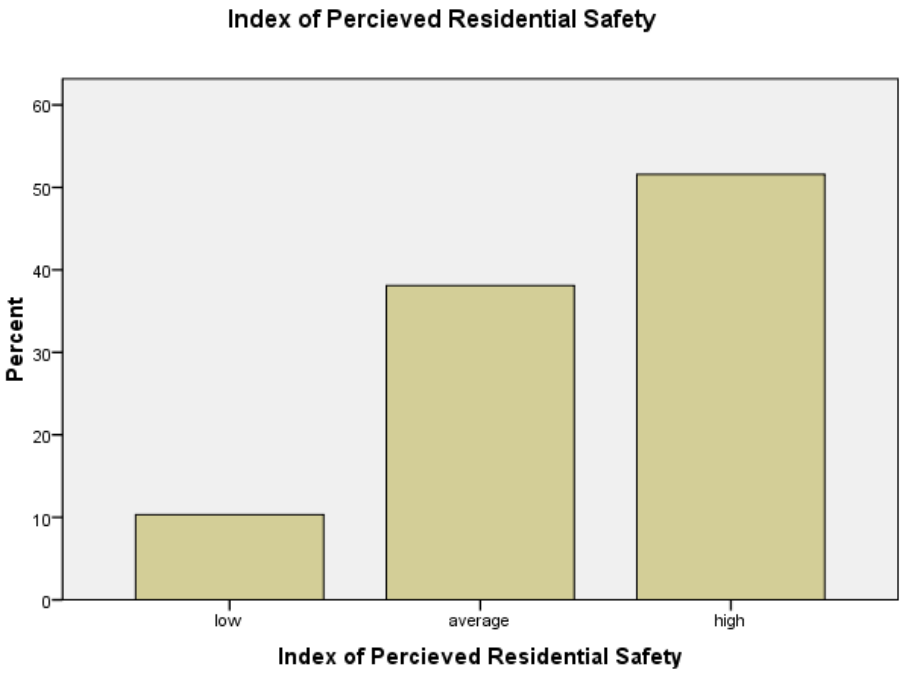

Figure 2: Index of Perceived Residential Safety

Table 3 shows the relationship between the level of Residents' perceived safety and the floor level their rooms are located. Close to three- quarter 71.7% of the respondents on the third floor, 59.1% of them on the second floor and 49.4% on the first floor, all have high perception of safety, while 35.2% and 12.5% of the respondents on the ground floor and the basement levels respectively recorded high perception of safety. A statistically significant relationship x^2 =53.165, df = 8, p= 0.000 was observed between the perception of safety and the floor level. The result showed that there was a significant difference in the perception of safety at the different floor levels, with a progressive increase in the level of perceived safety as you move to the higher floor level.

The result in table 4 shows that 56.8% and 51.6% of respondents living on the single loaded and partial double loaded corridors respectively felt highly safe, as against 27.3% on double loaded in the halls of residence. In spite of the difference in the corridor loading types, no statistically significant relationship (chi-sq. x^2 =7.673, df = 4, p= 0.104) was observed, which implies that the perception of safety was not significantly different across the different corridor loading types. In same manner, when the length of the corridor was correlated with the level of perceived safety, it showed that the relationship was statistically significant (x^2 =9.324, df = 4, p= 0.004).

58.5% of respondents, whose rooms located on the short corridor type, that is, floors that accommodates up to 5 rooms between service cores on same corridor, perceived that the hall of residence as highly safe as against 27.3% of those on long corridor types which have more than 10 rooms between service cores on same corridor.

Table 3: Cross-tabulation: Dwelling floor level * Level of Residents' perceived safety

		Level of Residents' perceived safety			
		Low	Average	High	Total
Dwelling floor level					
	Basement	4 (50.0%)	3 (37.5%)	1 (12.5%)	8 (100.0%)
	Ground floor	16 (29.6%)	19 (35.2%)	19 (35.2%)	54 (100.0%)
	1st floor	4 (5.2%)	35 (45.5%)	38 (49.4%)	77 (100.0%)
	2nd floor	1 (1.5%)	26 (39.4%)	39 (59.1%)	66 (100.0%)
	3rd floor	0 (0.0%)	13 (28.3%)	33 (71.7%)	46 (100.0%)
Total		25 (10.0%)	96 (38.2%)	130 (51.8%)	251 (100.0%)

x^2 =56.878, df = 8, p= 0.000

Source: Author's Fieldwork: 2017

Table 4: Cross-tabulation: Corridor loading * Level of Residents' perceived safety

		Level of Residents' perceived safety			
		Low	Average	High	Total
Corridor Loading					
	Single loaded	17 (10.5%)	53 (32.7%)	92 (56.8%)	162 (100.0%)
	Double loaded	6 (10.2%)	31 (52.5%)	22 (37.3%)	59 (100.0%)
	Partial double loaded	3 (9.7%)	12 (38.7%)	16 (51.6%)	31 (100.0%)
Total		26 (10.3%)	96 (38.1%)	130 (51.6%)	252 (100.0%)

x^2 =7.673, df = 4, p= 0.104

Source: Author's Fieldwork: 2017

6. DISCUSSION OF FINDINGS

The findings from the study showed that the students' perception of safety in their halls of residence correlates positively with the dwelling floor heights. Students residing on higher floor levels feel safer than those on the lower floor; hence floor height has been found to be a strong indicator of perceived safety ostensibly because as human traffic to upper floors reduces, students will encounter fewer strangers thereby making territoriality, which is a key element of defensible space, more effective. This finding is in conformity Kaya & Erkip (2001) that found students residing in university dormitories feel less crowded on higher floor levels than on the lower floors because fewer strangers tend to reach the upper floors of buildings.

However, a specific difference was found with respect to corridor length, as students residing on short corridor types were found to perceive the floor where their rooms are located as safer than those living on the long corridors, which can be adduced to respondents on the long corridor type feeling dissatisfied, not only, with the number of rooms on their corridor but also with the number of persons who use their corridor daily. This supports the findings of previous studies that affirm that limiting the number of people sharing a space enhances territoriality and residents' perception of safety (Newman, 1975; Okunola, 2015).

But despite the differences in corridor loading types in the halls of residence, there was no significant difference in respondents' perception of safety, even though previous studies have stated double loaded corridor design present more opportunities for crime in building interiors (Newman, 1972).

7. CONCLUDING REMARKS

This study indicates that residing on upper floors in students' hall of residence has as one of its advantages higher perceived safety. This may be regarded as compensating for the perceived advantage the lower floors have in terms of its ease of access.

Findings show that 58.5% of respondents, whose rooms are located on the short corridor type, that is, floors that accommodates up to 5 rooms between service cores on same corridor, perceived that the hall of residence as highly safe as against 27.3% of those on long corridor types which have more than 10 rooms between service cores on same corridor. It also indicate that single loaded and the short corridor type design in the halls of residence was found to possess a higher level of territoriality and hence perceived as safer and more defensible. The suggest that territoriality as element of defensible space needs to be given adequate consideration architectural design concept to discourage opportunities for crime.

The outcomes of this study are therefore significant and crucial for planning professionals and University management because they underscores the importance of the characteristics of the floor level as a critical component in the architectural design of students' halls of residence for crime prevention.

8. CONTRIBUTIONS TO KNOWLEDGE

The outcomes of the study are significant and crucial for planning professionals and University management because it underscores the importance of the characteristics of the floor level as a critical component in the architectural design of students' halls of residence for crime prevention.

REFERENCES

1. Anokye, A. & Mohammed, A., (2016). Students' Accommodation and Security Implications: A study of some selected hostels of the Kwame Nkrumah University of Science and Technology; *Imperial Journal of Interdisciplinary Research*, Vol. 2 (8)
2. Amole, D., (1997). An Evaluation of Students Residential Facilities in Some Nigerian Universities, *Unpublished PhD Dissertation*, Department Of Architecture, Obafemi Awolowo University, Ile-Ife, Nigeria.
3. Amole, D., (2009). Residential satisfaction and levels of environment in students' residences, *Journal of Environment and Behaviour,* Vol. 41 (6): 1-14.
4. Amole, D., (2011). Students' Housing Preferences in Southwestern Nigeria, *Journal of Architectural and Planning Research*, Vol. 28 (1): 44-57
5. Brown, B.B., & Altman, I., (1981). Territoriality and residential crime: A conceptual framework, In: P J Brantingham and P L Brantingham (Eds), *Urban Crime and Environmental Criminology*, Beverly Hills, C A: Sage.
6. Brown, R.A. & Green, C.H., (1980). Precepts of Safety Assessment, *The Journal of the Operational Research Society*, Vol. 31 (7): 563-571.
7. Cozens, D.H., & Gwyn, P., (2001). Crime and the design of residential property: exploring the theoretical background part 1, *Property Management,* Vol. 19(2): 136-164.
8. Crowe, T., (2000). *Crime Prevention through Environmental Design: Applications of Architectural Design and Space Management Concepts*, In: 2nd ed. Oxford: Butterworth, Heinemann.
9. Ekblom, P., (1995). Less Crime by Design, *Annals of the American Academy of Political and Social Science*, Vol. 53 (9): 114-129
10. Fatemeh, K.., Nadia, A., Ahmad, S. H., Zahra, K., (2010). The Factors Predicting Students' Satisfaction with University Hostels: Case Study of University Sains, Malaysia. *Journal of Asian culture and History* Vol. 2, No. 2
11. Jacobs, J., (1961). *The Death and Life of Great American Cities* (Revised Ed. 1993). New York: Modern Library.
12. Katyal, N.K., (2002). Architecture as Crime Control, *The Yale Law Journal*, Vol. 111 (5): 1039-1139.
13. Kaya, N., & Erkip, F., (2001). Satisfaction in a dormitory building: The effects of floor height on the perception of room size and crowding, *Journal of Environment and Behavior,* Vol. 33 (1): 35-53.
14. Najib, N., Yusuf, N., & Osman, Z., (2011). Measuring satisfaction with student housing facilities, *American Journal of Engineering and Applied Sciences,* Vol. 4 (1): 52-60.
15. Newman, O., (1972). *Defensible Space*. New York: Macmillan.
16. Newman, O., (1975). *Design Guidelines for Creating Defensible Space*. Washington, D.C.: U.S. Department of Justice, Law Enforcement Assistance Administration.
17. Newman, O., (1996). *Creating defensible space.* Washington, D.C.: US Department of Housing and Urban Development, Office of Policy Development and Research.
18. Newman, O., & Franck, K., (1982). The Effects of Building Size on Personal Crime and Fear of Crime, *Population and Environment*, Vol. 5 (4): 203-220
19. Okunola, O.O. & Amole, D., (2015). Residents Perception of Safety Index in Festac Town Residential Neighbourhood, Lagos. Lagos Journal of Architecture, Vol.1 pp 19-33
20. Ratti, C. L., (2010). Student Perceptions of Campus Safety at the University of Mary Washington. *A Thesis Dissertation*, Department of Geography, University of Mary Washington, Fredericksburg, VA 22401.
21. Smith, M., & Fossey, R., (1995). *Crime on Campus*. Phoenix: The Oryx Press.
22. Suk, K., (2006). The Gated Community: Residents' Crime Experience and Perception of Safety behind Gates and Fences in the Urban Area. An unpublished PhD. Dissertation submitted to the Office of Graduate Studies of Texas A&M University.
23. Umaru, E.T., Abdrazack, N.T.A., Aiyejina, W.T., Ajagbe, M.A., (2012). The Impact of Non-Residential Tertiary Institutions on Housing in Lagos: A Case Study of Lagos State University, *IRACST – Engineering Science and Technology: An International Journal (ESTIJ),* ISSN: 2250-3498, Vol.2, No. 4, August 2012
24. Weidemann, S., Anderson, J.R., Butterfield, D.I., & O'Donnell, P.M., (1982). Residents' Perceptions of Satisfaction and Safety: A Basis for Change in Multifamily Housing*, Environment and Behaviour,* Vol. 14: (695 York: Collier Books