Inmates’ Perception of the Built Environment in Borstal Training Institution, Ilorin, Nigeria

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Abstract

It is established that the built environment has a major influence on juveniles and cannot be ignored in the quest to curb juvenile delinquency. The architectural design of juvenile rehabilitation centres should therefore possess the qualities that will enhance the rehabilitation process. It is in this regard that the built environment of Borstal Training Institution, Ilorin is examined with the aim of establishing relationship between the perception of the built environment and its subsequent effects on behaviour of inmates. Visual survey was used to collect data alongside questionnaires which were administered on 79 delinquents aged 14-21 years. Findings from the questionnaire survey indicates negative perception of inmates with regards to facility location, sporting facilities, religious facilities, views from interiors, building exterior views, and interior colours while there was a positive perception of inmates towards landscape elements, character of buildings, and distance between facilities. The study concludes that the perception of the built environment by delinquents in Borstal Training Institution, Ilorin can be improved greatly by gearing the various components of the built environment towards reformation and reintegration rather than punishment.

Keywords: Built environment, Inmate, Juveniles, Perception, Reformation, Rehabilitation
Introduction

Juvenile delinquency is one social problem with damaging emotional, physical and economic effect felt throughout the communities in which it occurs (Tarolla, Wagner, Rabinowitz, & Tubman, 2002). Rao (2000) opined that juvenile delinquency is one of the greatest impediments to the advancement of youths due to the rise in the number of youths incarcerated yearly. According to Hoge (2006), one out of every six people on the planet is between 10 and 19 years of age. In Nigeria, the proportion of this young people is significantly high with the assertion by Idris and Ejikeme (2005) that young people aged 10 to 19 years, account for a major proportion of Nigeria's population, making them a force for profound change. Therefore, any investment in reducing the increasing cases of juvenile delinquency, rehabilitating and reinserting juvenile delinquents into the society is a worthwhile investment which would avert future calamity.

The rights and needs of juveniles are different from those of adults and should be reflected in the way they are treated as insisted by the Juvenile Justice system of the Children and Young Persons law. It emphasizes rehabilitation instead of punishment, prevention rather than retribution as the principal goals of the justice system (Prison Reform, 2006). But the harsh realities remain in the large population of juveniles detained in adult prisons and the decrepit state of juvenile rehabilitation centres across Nigeria (Adetula, Adetula & Fatusin, 2010). Tenibiaje (2010) adds that in spite of the fact that rehabilitation centres are supposed to be a place for reformation and rehabilitation, these centres in Nigeria have become a place for retribution with little attention given to rehabilitation. Therefore, a built environment that is able to accommodate all necessities for inmates' rehabilitation is extremely necessary and important. In addition to functionality of the built environment, it ought to have a proper and appropriate built environment that stimulates positive behaviour, calmness and reflection. It is in this light that this study assesses the perception of inmates in Borstal Training Institution, Ilorin regarding their built environment.

Built Environment and Juveniles Behaviour

Behavioural theory or psychology is built upon the idea that all behaviours are acquired through conditioning and conditioning occurs through interaction with the environment, and our responses to environmental stimuli shape our behaviour (Watson, 1913; Watson, 1925). Similarly, environmental psychologists have established a relationship between the built environment and human behaviour and examined the role of architectural design in moulding and shaping behaviour (De Young, 2013).

Bell, Greene, Fisher, and Baum (1996) defined this relationship as architectural determinism which suggests that architecture directly shapes the behaviour of the people within it. This falls within the concept of environmental determinism which its most extreme form
sees the physical environment as the only, or at least as the primary cause of behaviour. Closely related to environmental determinism are the concepts of environmental possibilism and environmental probabilism. Environmental possibilism views the environment as presenting us with opportunities as well as setting potential limits on behaviour (Porteus, 1977, Bell et al., 1996). This concept, unlike architectural determinism, does not view the environment as the supreme determinant of behaviour, rather, it views the environment as the context in which the behaviour occurs (Bell et al., 1996). Environmental probabilism, on the other hand, is situated in-between the determinist and possibilist positions (Porteus, 1977, Bell et al., 1996: 416). It proposes that an organism may choose a variety of responses in any environmental situation but accepts that there are probabilities associated with specific instances of design and behaviour. These probabilities reflect the influences of both non-architectural factors and design variables on behaviour (Bell et al., 1996). These submission leaves no one in doubt about the place of the built environment in influencing social interaction, activity and behaviour (Cummings, 2012).

Perception of the built environment in rehabilitation centres has been identified to have an influence on the behaviour of inmates within such facilities. The built environment has a significant effect on the development of individuals and on his/her subsequent behaviour and attitudes (Villanueva, 2006). This built environment includes all structures created by people, such as buildings, streets, sidewalks, and other utilities (McClure & Bartuska, 2007). It denotes the integrated built context in which individuals live, which affects people in many ways in their attitude and behaviour (Mazumdar, 2000). Rama, Yogesh and Alka (2010) summarised the built environment to be the physical features of colonies mainly the structural, environmental, proximity, infrastructure and service dimensions that make the primary component of built environment. Therefore both the good or bad environment will adversely affect the normal development of individuals through perception (Malekpour, 2007).

According to behaviour modification of United Nations Educational, Scientific and Cultural Organisation (UNESCO) (2000), behaviour can be defined as the way in which an individual behaves or acts. Behaviour, therefore, is the way an individual acts towards people, society or objects. It can be either bad or good. It can be normal or abnormal according to societal norms (UNESCO, 2000). Society will always try to correct bad behaviour and try to bring abnormal behaviour back to normal. Environmental interventions are proactive and culturally sensitive in nature and seek to prevent juveniles from engaging in problem behaviours by changing the environment in which the behaviours occur and teaching pro-social behaviours (Duda & Utley, 2005). Positive environmental interventions can also be employed to help juveniles acquire the behavioural and social skills that they will need to succeed in an inclusive environment (Choutka, Doloughty & Zirkel, 2004; Lane, Pierson, & Givner, 2004; Lane, Pierson,&
The built environment ought to influence the behaviour of inmates through positive perception and help in re-inserting delinquents into the society as reformed individuals. Some of the features of juvenile rehabilitation institution that affect behaviour are spatial organization, Visual character, site design and supervision and security features.

**Spatial Organization**

The spatial organizations of a rehabilitation centre are best structured with spaces that allow for the optimum utilization of the required natural light and ventilation (Waid & Clement, 2001). The layout ought to have similar functions grouped into functional cluster or arranged in linear sequence with appropriate access to outdoor spaces that must be easily accessible to the users with segregation for privacy. With these requirements, the best form of spatial organization that would be appropriate for rehabilitation centres with focus on reformation through the arrangement and placement of buildings, is the centralized or courtyard form of organization. The centralized layout provides an easy means of monitoring the activities of juvenile delinquents from the central space (Waid & Clement, 2001). The central spaces or courtyards, when beautified, would also serve as good view from different sections of the facility thereby improving the perception of delinquents positively.

**Visual Character**

The most effective built environments which aids rehabilitation and reformation of individuals are environments that enhance the quality of life and being domestic in nature rather than the punitive types of built environment (Wright, 1993) which in turn would result to positive perception from juveniles. The architectural character of rehabilitation centre ought to be inspiring providing clear views to nature, with the use of normalized materials, soft texture and colours (Crowe, 2000). These express serenity to individuals, which helps to ward off monotony and motivate the senses.

**Site Design**

The elimination of the stereotypical intimidating image of punishment and incarceration is vital for the design of a successful rehabilitation centre (Atlas & Dunham, 1990). Rehabilitation centres are public social institutions which should be integrated in the community to which the juveniles will be discharge so that they blend with the surrounding area (Gendreau & Keyes, 2001). Although a barrier to the surrounding environment is necessary to maintain security. The site design of the facility should aim at deinstitutionalizing the facility and integrating it into the border community by designing a normalized and modern built environment that hastens rehabilitation of delinquents.

**Supervision and Security**

Supervision and security in rehabilitation should have a design that aims to provide clear sightlines within the facility (Waid & Clements, 2001). Clear sightlines within rehabilitation centre can be realised by the use of straight-line designs that provides
unobstructed views throughout the rehabilitation centre while enhancing proper orientation of facilities (Potter, 1990). Direct supervision within private areas is an effective way to work towards delinquents respect through design (Akinci, 2012). It promotes constant and direct interaction between staff and juvenile delinquents within the rehabilitation centre thereby proactively identifying and addressing antisocial behaviours before they escalate. The indirect method of supervision allows delinquents participate in activities with less obtrusive security (Akinci, 2012). It gives delinquents some measure of control over their environment which brings about an environment that is conducive for behavioural change and self-awareness by encouraging delinquents to make their behaviour and make choices regarding their activities. Controlling circulation within the rehabilitation centre is also an important factor in observing the activities of juvenile delinquents (Griffin & Hepburn, 2013). For this reason, the design of rehabilitation centre should be able to keep circulation path open and visible with minimum number of levels possible. This would make circulation within the rehabilitation centre more direct as well as easier to observe and monitor juveniles with the elimination of blind spots within the facility.

The rehabilitation centre should minimize the need for public/visitor within the facility. This can be achieved through proper arrangement of functional requirements according to their use and users (Gendreau & Keyes, 2001).

Methodology

Borstal Training Institution, Ilorin is a correctional facility established to keep custody of young offenders who have offended the law as stated in the Borstal Institutions and Remand Centre Act, Cap.B11 LTN 2004 (Laws of Federation of Nigeria, 2004). It has a total of two hundred and seven (207) young offenders as at the time of the study, of which all were male.

This study was based on the physical perceptual approach. This approach presents us with a picture or best guess as to the present state of the environment around us. It may be visual images or through the other senses. It includes both an assessment of what is in a scene and an evaluation of the good and bad elements. It emphasizes characteristics of the physical environment that can be related statistically to judgments of preference. This method has been used to predict positive or negative evaluations of scenic quality (Bell et al, 1996).

The study was descriptive in nature and data was collected through visual survey and questionnaire survey. The visual survey examined the built environment of the centres based on characteristics of identified in literature as desirable for juvenile rehabilitation centres. The visual survey was aimed at obtaining the facility’s descriptive character while the questionnaires were administered to the juvenile delinquents to elicit data regarding their perception of their built environment and its effect on their behaviour. The questions were placed on a five point Likert scale as follows: Strongly Disagree (SD), Disagree (D), Undecided (U),
Agree (A), and Strongly Agree (SA). Questionnaire administration was based on systematic random sampling by selecting the nth subject at each rehabilitation centre, where n is the number determined by dividing the population at each rehabilitation centre by the required sample size (79). The response rate was 100% since questionnaires administered on the spot. Respondents who were literate completed their questionnaires while the researcher (interviewer) read the questions and filled the questionnaires accordingly for those who were not literate. Analysis of the visual survey was descriptive in nature while data from questionnaire were subjected to descriptive statistics to obtain frequencies, percentages, and means using SPSS software.

Findings and Discussion

Spatial Organization

Borstal Training Institution, Ilorin appears to be of one cluster, with the major open space lopsidedly located in front of the administrative/educational building as shown in Figure. 1. The buildings within the Borstal Training Institution, Ilorin are organized around a central courtyard. This central courtyard also serves the function of being the parade ground of the institution. All other facilities/buildings within the rehabilitation centre are linked to the central courtyard. Workshops, classrooms, hostels and dining hall are some of the facilities surrounding the central courtyard within the borstal training institution.

Fig. 1: Layout of Borstal Training Institution, Ilorin, Source: Authors field survey

Architectural Character

All the buildings in the Borstal Training Institution, Ilorin are rectangular buildings with the semblance of classroom blocks in Nigeria which are of the post and beam construction type and consist of horizontal spanning elements supported on vertical columns and walls. The buildings are
made with masonry block walls. Other materials used for the construction of the buildings include steel, reinforced concrete, timber and aluminium roofing sheet. These characteristics were not different from those of buildings in the nearest communities. The Borstal Training Institution is bordered by fence walls which create an image of incarceration. The buildings are of single floor and painted in shades of green and yellow and these colours represent the colours of Nigerian Prison Service.

Site Design

The Borstal Training Institution is on a site which is about three thousand square meters in size with little space for future expansion having its only area left for future expansion used as the officers' salute space for the principal and other senior prison staff. The site has paths that are used for vehicular and pedestrian movements but are not clearly defined as seen in Figure 1. The drainage of the site, driveway, and landscape elements needs to be in consideration so as to improve on them. There are a significant numbers of scattered trees across the site with little shrubs. These landscape elements need to be improved in order to have a positive effect on the reformation of young offenders.

Supervision and Security

Borstal Training Institution, Ilorin is of a single cluster of closely packed buildings which creates more blind spots. As a result, the institution employs both the direct and indirect methods of supervision. For the indirect supervision, guards of Nigeria Prison Service are stationed in watch towers located at the different corners of the facility, also, guards are stationed within sections of the facility so as to monitor this young offenders. Also, inmates are usually restricted to their hostel at all times. This restriction of the inmates, the stationing of guards and the use of watch towers, all contribute in creating a feeling of incarceration, and does not inspire normal behaviour.

Inmates Perception of Borstal Training Institution, Ilorin

Questionnaire result shows that highest number of the inmates in the Borstal Training Institution, Ilorin (40, 50.63%) were between the ages of 19 and 40years. Also, 65 inmates (87%) were secondary school students, while four respondents (5.06%) had no Western education. Details of the distribution of respondents based on age and educational level are given in Table 1.

Table 1: Respondents' Demographics

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>13-15</th>
<th>16-18</th>
<th>19-21</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13 (16.45%)</td>
<td>26 (32.91)</td>
<td>40 (50.63%)</td>
<td>79</td>
</tr>
<tr>
<td>Level of Education</td>
<td>No Western Education</td>
<td>Primary School</td>
<td>Secondary School</td>
<td>Tertiary Institution</td>
</tr>
<tr>
<td></td>
<td>4 (5.06%)</td>
<td>65 (87%)</td>
<td>10 (12.65)</td>
<td>79</td>
</tr>
</tbody>
</table>
Majority (80%) of the total respondents agreed that the location of the facility makes them feel isolated from people with only seventeen percent (17%) disagreeing. Also, fifty-two percent (52%) of the total respondents agreed that adequate sporting facilities help in preventing anti-social behaviour with only forty-two percent (42%) disagreeing.

Also, fifty-two percent (52%) of the total respondents agreed that adequate sporting facilities help in preventing anti-social behaviour with only forty-two percent (42%) disagreeing.

Majority (78%) of the respondents agreed that the building prevents them from viewing their exterior surrounding which brings about depression to them with 16% disagreeing. Also, eighty percent (80%) of the total respondents agreed that having views of the outdoor through windows has a positive influence on them whereas fifteen percent (15%) disagreed.

Thirty-six percent (36%) of the total respondents agreed that the presence of common facilities/areas encourages their daily interaction with other juveniles with sixty-four percent (64%) disagreeing. Also, there was significant difference between the respondents that agreed (54%) that the exterior building appearance of the facilities/buildings are pleasing to them and those that disagreed (38%) (Table 2).

Table 2: Inmates’ Level of Agreement with Statements on Built Environment

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>LEVEL OF AGREEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Location of the facility makes one feel isolated from people.</td>
<td>SA 25 A 38 U 2 D 9 SD 5 Invalid</td>
</tr>
<tr>
<td>Adequate facilities like football pitch, basketball court,</td>
<td>32% 48% 3% 11% 6%</td>
</tr>
<tr>
<td>volleyball court helps in preventing idleness which helps</td>
<td></td>
</tr>
<tr>
<td>in preventing anti-social behaviour.</td>
<td></td>
</tr>
<tr>
<td>The building prevents one from viewing exterior surroundings which</td>
<td>29 32 5 7 6 -</td>
</tr>
<tr>
<td>brings about depression.</td>
<td>37% 41% 6% 9% 7%</td>
</tr>
<tr>
<td>Views of the outdoor through windows has a positive influences on the</td>
<td>22 41 4 8 4 -</td>
</tr>
<tr>
<td>inmates.</td>
<td>28% 52% 5% 10% 5%</td>
</tr>
<tr>
<td>The presence of common facilities/areas encourages your daily interaction</td>
<td>10 16 2 27 24 -</td>
</tr>
<tr>
<td>with other juveniles.</td>
<td>13% 20% 3% 34% 30%</td>
</tr>
<tr>
<td>The interior colours affects the way one feels within the</td>
<td>20 26 5 18 10 -</td>
</tr>
<tr>
<td>various sections of the facility.</td>
<td>25% 33% 6% 23% 13%</td>
</tr>
<tr>
<td>The distance between facilities encourages one to</td>
<td>18 34 4 14 9 -</td>
</tr>
<tr>
<td>participate in all activities within the rehabilitation centre.</td>
<td>23% 43% 5% 18% 11%</td>
</tr>
<tr>
<td>Presence of landscape elements such as shrubs and hedges encourage</td>
<td>27 36 3 8 5 -</td>
</tr>
<tr>
<td>engagement in outdoor activities.</td>
<td>34% 46% 4% 10% 6%</td>
</tr>
<tr>
<td>The exterior appearance of the facilities/buildings are</td>
<td>16 27 6 16 14 -</td>
</tr>
<tr>
<td>pleasing.</td>
<td>20% 34% 8% 20% 18%</td>
</tr>
</tbody>
</table>

SA = Strongly Agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly Disagree
The result also shows that the highest level of agreement was on the statement that the presence of landscape elements such as shrubs and hedges encourage engagement in outdoor activities, with a mean score of 3.91 on a 5-point scale, while the lowest level of agreement was on the statement that the presence of common facilities/areas encourages your daily interaction with other juveniles, with a mean score of 2.50 (Table 3).

**Table 3: Mean Scores of Statements**

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Location of the facility makes one feel isolated from people.</td>
<td>3.87</td>
</tr>
<tr>
<td>Adequate facilities like football pitch, basketball court, volleyball court helps in preventing idleness which helps in preventing anti-social behaviour.</td>
<td>3.21</td>
</tr>
<tr>
<td>The building prevents one from viewing exterior surroundings which brings about depression.</td>
<td>3.44</td>
</tr>
<tr>
<td>Views of the outdoor through windows has a positive influences on the inmates.</td>
<td>3.87</td>
</tr>
<tr>
<td>The presence of common facilities/areas encourages your daily interaction with other juveniles.</td>
<td>2.50</td>
</tr>
<tr>
<td>The interior colours affects the way one feels within the various sections of the facility.</td>
<td>3.35</td>
</tr>
<tr>
<td>The distance between facilities encourages one to participate in all activities within the rehabilitation centre.</td>
<td>3.48</td>
</tr>
<tr>
<td>Presence of landscape elements such as shrubs and hedges encourage engagement in outdoor activities.</td>
<td>3.91</td>
</tr>
<tr>
<td>The exterior appearance of the facilities/buildings are pleasing.</td>
<td>3.19</td>
</tr>
</tbody>
</table>

**Discussion**

Previous studies have linked juvenile delinquency to factors such as peer influence, socio-economic background, family background, neighbourhood factors and others (Hunte, 2006; Green, Gesten, Greenwalt & Salcedo, 2008; Simoes, Matos & Batista-Foguet, 2008). However, this study was conducted to assesses the perception of inmates in Borstal Training Institution, Ilorin regarding their built environment.

Gendreau and Keyes (2001) have emphasized the need for juvenile rehabilitation centres to be integrated to the surrounding community in order not to create a disconnection between the young offenders and the society to which they will return. In consonance with this, most respondents agreed with the statement that the location of the facility makes them feel isolated from people, which can be attributed to the secluded location of the Borstal Training Institution in Ilorin, Kwara state. This negative perception can be remedied in the future by eliminating the secluded nature of such facility by integrating it into the society and making it the public social institution it ought to be.

With regards to spatial organisation, studies have emphasized the importance for juvenile rehabilitation centre to be organized around spaces that allows for surveillance and the grouping of activities around functional clusters or linear sequence (Waid and Clement, 2001). The centralized space at BTII functions as sporting space also contributed to the large number of
respondents agreeing that adequate sporting facilities helps in preventing idleness which in turn prevents antisocial behaviours.

Generally, most of the responses to the questions asked conforms to the conclusion made by Malekpour (2007) that a bad environment will adversely affect the perception and behaviour of an individual. Thus improving the built environment of rehabilitation centres would have a positive effect on the perception of juveniles in rehabilitation centres.

Conclusion

This paper used visual survey, interview and questionnaires to collect and analyse data on juveniles' perception of the built environment in Borstal Training Institution, Ilorin.

The visual survey showed that there was a high level of deficit in the provision of amenities when compared with local and international standards. This is in consonance with the questionnaire survey result which shows that majority of the inmates had negative perception of the built environment of BTII. This shows that the inmates are aware of their environment, and buttresses the need for improvement in the built environment of BTII in order to give the inmates a more positive outlook which will in turn culminate in more positive outcomes for the young offenders.

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