Evaluation of Effect of Gender on the Students Residential Facilities in a Secondary School
[A Case Study of Deeper Life High School, Ilorin, Nigeria]

Dr. AMAO Funmilayo Lanrewaju [1], Dr. OYADOKUN Joel. Olufemi [2], Buraimoh Ayooluwa Joseph[3]

1Department of Architecture, Faculty of Environmental Sciences, LAUTECH, Nigeria.
ORCID Number: https://orcid.org/0000-0002-8422-206X
flamao@lautech.edu.ng
Tell: (+234) 8057445386
2,3 Department of Architecture, Faculty of Environmental Sciences, LAUTECH, Nigeria.

Abstract
The research is aimed at examining the influence of gender difference in the design of dormitory in a secondary school. It is also to determine whether students are satisfied with the dormitory design or not. The objectives of the study are to identify and examine the characteristics of students who live in the dormitory in terms of their background; to examine the responses of the students to the functional, technical and behavioral issues in the dormitory and to analyze the difference between the responses of male and female in term of gender.
Secondary and primary data were used in the course of study. The secondary data was obtained from books, journals and seminar papers while primary data relating to students, housing and environmental quality from structured questionnaire administered on sample size of 20% amounting to 100 students from sampling frame of 500 students was considered reasonable for the study. The results of the study revealed gender as one of the important factors which affect satisfaction within the dormitories of the secondary school. The result of the research is expected to serve as a guide in preparing a brief for future secondary school design. The study concluded that an enhanced understanding of building performance can inform design decision making of architects and building professionals which can also result into improved condition for occupants and saving for building owner.
Keywords: *Gender, Satisfaction, Dormitory, Housing*

1.0   Background of Study

The concept of dormitories in secondary school was to bring interaction between learning and living in order to produce intellectual that are socially cultivated. The educator's belief that the intellectual and social development of individual students is of a great important. They thought that mixing of learning and living through which common standards of culture and citizenship could be passed compensate for the diversity arising from differing home background. Most of the time, the architect's desire for aesthetics over functional factors may be different from the user's need. Research has shown that most of the dormitories are often planned, designed and constructed are without any input from the users irrespective of their gender differences (Amole, 2009). Therefore, it is important for the architect to consult all end users at the appropriate time to allow them exert genuine influence over decision making.

A dormitory or dorm is a place to sleep. The word derives from the French dormer, to sleep. Dormitories are usually referred to as "dorms". The word is used in two contexts: room with many beds (a sleeping dormitory) and Building with many small private rooms (a dormitory building). Sleeping dormitory typically is a large room with very few furniture except for beds. Such rooms provide little or no privacy for the residents, and very limited storage for personal item while storage and personal spaces is often provided in other locations in the building. The study of privacy is particularly important in the context of student housing because it has been identified as a means of controlling overcrowding, developing sense of identity and territoriality, maintaining personal autonomy and self-evaluation, and providing protected information, social behaviour and the healthy relation of the individual within society (Ahmad & Zaiton, 2008). Student sleeping dormitory has been criticized for not being designed in accordance with users' privacy needs and sensitivity to socio- cultural factors (Kennedy et al., 2015; Tao, 2018).

Residential facilities are considered as the key factor in the academic experience of a Boarding Secondary School. This is because; the success of such school is connected with the way in which the users (students) are satisfied with the dormitory design. It is also very important to examine if the class, age and gender difference were considered in the design or not. Many at times, it has been observed that the Architect usually creates most of the problems associated with users of spaces during the design stage (Amao, 2022). A critical analysis of the existing dormitories of Deeper Life High School, Ilorin, shows no gender differences in the design. There are some specific needs for female students, which are not needed by the male student. These differential needs are not supposed to be limited to the toilet alone. Research has shown that female students need a little more privacy than the male students (Amao, 2006).

Conversely, the students are merely concerned about being accommodated and most of the secondary school dormitories were designed with the purpose of students getting accommodation. It takes the effort of a post-occupancy evaluation to find these problems out and provide solution to them.

1.1 Aims and Objectives

The primary aim of this study is to examine user's satisfaction in respect to students' dormitories within the same environment of a secondary school.

The specific objectives are to:

(a) examine the characteristics of students who live in the dormitories in terms of their background.

(b) determine the level of students satisfaction with functional, technical, and behavioral aspect of the dormitories (Students Residential Facilities)

(c) analyze the difference between the responses of male and female in term of gender.

2.0 Literature Review

2.1 Post-Occupancy Evaluation

Post-Occupancy Evaluation is the process of evaluating building in a systematic and rigorous manner after they have been built and occupied for some time. Post-Occupancy evaluation also concerns with systematic analysis of particular type of built environments in order to gain understanding for their behavioral impacts. In more specific terms, Post-Occupancy Evaluation (POE) focus on building occupants and their needs, and this provide insight into the consequences of past design decision and the resulting building performance.

A built environment for Post-Occupancy Evaluation (POE) can be an individual building and its setting or a particular group of buildings and their settings. It can be an individual urban space. It is important that post-occupancy evaluation (POE) is confined to this scope; otherwise identification of user and their relations to planned activities may become too complex to guarantee credible results. Post-Occupancy evaluation (POE) can be used for purposes such as generation of technical, environmental and social data. All these data can be used for; designing better built environments; improving the quality of existing built environments; providing an insight into building performance; measuring the building performance against certain criteria's; guiding prospective landed property buyers and tenants; assessing pilot building projects and assessing successes and failure of building.

Post-Occupancy Evaluation (POE) is generally defined as the process of systematically evaluating the degree to which occupied buildings meet user's needs and organizational goals. Post-Occupancy Evaluation (POE) are identified as a phase in the building design process that follows the sequence of planning, programming, design, construction, occupancy, remodeling and building performance criteria of a building, (Doidge, 2001; Amole, 2012).

2.2.1 Uses and Benefits of Post Occupancy Evaluation

Depending on any of these goals or objectives of the client organization and the time frame involved, POE have uses and benefits over the short, medium long term.

A. Short Term Benefits

Successes and failure in the performance of buildings are identified and recommendation made for the appropriate action required to resolve any problems. This is done within a short period of time and not in depth. Therefore, additional study may be needed to understand the identified problems fully, in which case further in depth POEs may be undertaken. Short term benefit of POE pertains to the budget cutting that is common in the financial planning phase of the building process. Reducing a project's cost often results in inferior quality, which in turn can negatively affect the functioning of the organization occupying the building. POE can help to show the implication of various design alternatives devised to meet lowered budgets enabling the achievement of the best level of quality and performance within these constructs.

B. Medium Term Benefits

Post-Occupancy Evaluation carried out over the medium term can provide the justification and information base for adaptive re-use, remodeling or major construction in order to resolve problems that have

been identified in existing buildings. Example of POEs done over the medium term are; recycling old loft building in an apartments and build additions to accommodate organizations' changing space needs.

C. Long Term Benefits

Long term benefits result when the lesson learned from the failures and successes of building performance are assigned to the design of future buildings. The time-frame for the long-term benefits to come to function can range from three to ten years. The benefits of POEs is particularly relevant to generate building types, such as hotels, office buildings, school and housing. Application to quality assurance (QA) is another long-term benefit of POE. This area of concern is of increasing importance in the medical field, where performance standard have been established, for instance, in area of laboratory testing.

2.1.2 The Building Performance Concept

The building performance concept is the major philosophical and theoretical foundation of POE. It is no coincidence that professions of construction management and facilities management, both concerned with specific building performance, emerged parallel with efforts in the area of building evaluating, environment and human behavior. Below are the benefits:

- **Increased Objectivity**: the performance concept engenders objectivity because opinion is replaced by measures of performance.
- **Clarity measurement**: measured buildings performance information and criteria clarify what factors are relevant in design decision–making
- **Enhanced communication**: relevant criteria and measures of performance can be understood and discussed by the many participants in building because of attending measures, language and tests.
- **Incentive for Innovation and the Development of Alternatives:** The use of performance criteria allows the development of a range of solutions to design problems as long as the solutions meet the relevant performance required.
- **Aid in decision–making:** An objective analysis can be made of the relative merits of alternatives at a detailed level.

2.1.3 Elements of Building Performance

The elements of building performance refer to three major things;

- **Technical Elements:** They are elements which form the background environment and they set a stage for user's activities, elements that affects health, safety, welfare and physiological well-being of the users more directly than the other elements. They are not specific to any building type and do restructure of the building sanitation, fire safety, ventilation, walls illumination, acoustics finished, heating and ventilation. Performance criteria for technical elements are fairly well developed e.g. standards about how all structural elements should resists fire or reduce the spread of fire or generate smoke and levels of toxicity. The performance of technical elements are measured by instrumentation either on the field or in the laboratories
- **Functional Elements:** They are the more critical elements for the users or the client's goal achievement, their performance determines directly user's efficiency, effectiveness work flow and productivity of technical elements, they affect health and safety indirectly. Performance also has implication for physiological and mental wellbeing e.g. if a user is unsatisfied in performing his goals, it may affect their mental wellbeing.

  Functional element are such as human factor, (i.e. the appropriateness of anthropometrics and ergonomic dimensions access for personnel, security, parking, spatial capacity, utilities such as storage, sanitary facilities – telecommunications, adaptability of the building for other uses, responsiveness of the buildings to changes over time and circulation. Functional elements supports the activities of the users and they must therefore be responsive to the specific needs of the users both in terms of quantity and quality while some of the functional element such as circulation, utility are common to all building types. Performance criteria for functional elements are not as well developed as those as technical elements but they are still abundant in the literature and in addition, with functional element, performance criteria varies from building types to building types. For instance parking, this performance measures are obtained by observation, simple measurements such as counting frequency and by user's assessment. More of the measures of functional element are qualities rather than quantitative.
- **Behavioral Elements:** They are concerned with the social and physiological wellbeing of the users, they affect health and safety indirectly and also inhibit the achievement of user's goals indirectly, behavioral element represent users psychological and social needs within facility, and varies from building type to building type. Behavioral element includes such elements as privacy, freedom of choice, social interaction, territory, personal space, meanings, and legibility (Amao, 2022). Performance criteria for these are less developed and this element may be measures using the techniques of observation, interview and user assessment.

Concept of Users Satisfaction

Basic assumption of satisfaction studies based on the fact the users are in best position to evaluate while performance concept is based on the idea that evaluators are in best position to evaluate building (Ilesanmi, 2010). There are two approaches to the concept which are:

Purposive Approach: Satisfaction is a measure of the degree to which the building facilitates inhibits the goal of the users. They evaluate user's activities and how well it is used. Based on this definition, the proponent of this approach to satisfaction, they investigate user's goals and user's activities and they compare each activity and goal with what the building affords.

Aspiration Gap Approach: The proponent of this approach defines satisfaction as a measure of the difference or the gap between what the users aspire to and what they are obtained. This definition is based on the assumption that users evaluate their building on what they feel they need and their expectations (Ibem, and Aduwo 2013). This approach is mostly used because it is envisaged that in judging places by what they need, it is equally taking the activities of people and it is more comprehensive.

Gender Definitions, Identity and Roles

There are two categories of differences between men and women: sex, which is biological and gender, which is socially determined but is changeable. Gender identity of men and women in any giving society is socially and psychologically (historically and culturally) determined, (Pain, 2001). Where people live together, culture will arise: they will develop common values and rules. Gender Roles are roles that men and women are expected to play in society. Our socialization teaches and reinforces these roles. The culture of the community defines these roles. They can be found in three categories: reproductive role, productive role and community role. The kind of attitude towards men and women work is referred to as the gender division of labour. Gender division of labour differs from culture to culture and community to community, (Amole, 2012).

The Concept of Gender

The gender perspective looks at the impact of gender on people's opportunities, social roles and interactions. Successful implementation of the policy, programmed and project goals of international and national organizations is directly affected by impart of gender and in turn influences the process of social development. Gender is an integral component of every aspect of the economic, social, daily and private lives of individuals and socialites, and of the different roles ascribed by society to men and women, (Kakad, 2000). Social scientists and development experts use two separate terms to designate biologically determined difference between men and women, which are called "sex differences" and those constructed socially, which are called "gender difference". Both define the difference between men and women, but they have very different connotations, (Amole, 2004).

Sex reefers to the permanent and immutable biological characteristics common to individuals in all societies and cultures, while gender defines traits for throughout the history of social relations. Gender, although it originates in objective biological specifics of the two sexes in terms of the roles each is expected to play. Gender differences are social constructs, inculcated based on a specific society's particular perceptions of the physical differences and the assumed tastes, tendencies and capabilities of men and women. Gender historical and comparative characteristics of sex are universally conceded in historical and comparative social analyses to be variants that are transformed overtime and from one culture to the next. Gender relations are accordingly defined as the specific mechanisms whereby different cultures determine the functions and responsibilities of each sex.

3.0 Methodology

3.1 Research Physical Context

The research focused on evaluation of students' dormitories and how gender differences influence design in the same built environment. For the purpose of this research data were collected, analyzed and discussed. The study used a survey research method. Systematic random sampling method was adopted, representing 20% of the sampling frame of 500 students, both males and females. A sample size of 100 students was selected for questionnaire administration.

3.2 Research Instruments

Instruments used in research study includes observation, questionnaires, sketches and photography.

3.2.1 Observation of Physical Structures, Behaviours and Relationships

Room types are observed and location of spaces were identified. This involves observing and describing the users (students) behavior in their rooms with the use of photographs, sketches and field notes by expert on the following information:

1. Group of users: The users are fully described in terms of age, sex and physical status (i.e able or disable person).
2. Activities: What kind of activities do the users perform in their rooms?
3. Time: When do they perform these activities?

3.2.2   Questionnaire

Questions are asked on how students generally interact within their rooms, their view of satisfaction, distance of facilities within the room, size and the rates of use of the facilities and their general view about the room. Therefore, questionnaires is the principal tool used for all the objectives in this study. The respondent (student) must be accurately documented and the questions are focus on the following:

(1) Age of respondent
(2) Class of respondent
(3) Familiarity with the room
(4) Relationship with roommates
(5) Where they do the activities
(6) How often they perform the activities
(7) Religion of the respondent
(8) Ethnicity of the respondent

4.0   Results, Analysis and Interpretation.

The objectives of the research work are to evaluate the responses of users to the functional, technical and behavioural elements of the building and to determine the difference in response of the male and female on the elements. The main source of information for this analysis was obtained through the administration of questionnaires. In all, 100 questionnaires were administered and analyzed. The questionnaires data were sorted out and analyzed for frequencies, percentages and cumulative percentages. These analyses are classified according to the objectives of the research. The analysis of the data from the questionnaire is presented in tables.

Objective 1:
To examine the characteristics/background of the student who live the in the dormitories.
Table 4.1: Characteristics of Students

Characteristics of Students	Frequency	Percentages (%)	Cum. Per. (%)
Sex			
Male	50	50	50
Female	50	50	100
Age			
Under 10yrs	2	2	2
10-16yrs	82	82	82
16-20yrs	16	16	100
Class			
JSS 1	15	15	15
JSS 2	10	10	25
JSS 3	6	6	31
SSS 1	15	15	46
SSS 2	48	48	94
SSS 3	6	6	100
Religion			
Christianity	82	82	82
Islam	18	18	100
Nationality			
Nigerian	93	93	93
Non-Nigerian	7	7	100
Total	**100**	**100**	

100 questionnaires were administered to both male (50) and female (50) respondents. Findings from the table above shows that we have equal percentages of male and female for the research. The age group of most of the respondents fall within 10-16 years. This implies that the majority of the students are teenagers. The senior students participated more than the junior students. The main reason for this is basically to have a matured respondent in the course of the research. It was also observed that there are larger percentages of students who are Christians than Muslims in the school. This may be as a result of the school being a Deeper Life Church mission school. Almost all respondents in the school are Nigerians except very few who are non-Nigerians.
Objectives 2:
To determine the responses of the students to the functional, technical and behavioral aspect of the dormitories

A. Funcitonal Aspect Perfomance Data Analysis

The size of your room

The size of room	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	20	20	20
Good	24	24	44
Average	50	50	94
Fair	6	6	100
Poor	0	0	100
Total	100	100	

From the above table, about 50% of the respondents agreed that the size of the rooms provided is average while 6% believed is below average. This means that spatial allocation as they believe is okay.

Circulation and accesses within the dormitory

Circulation/Accesses	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	25	25	25
Good	45	45	70
Average	22	22	92
Fair	5	5	97
Poor	3	3	100
Total	100	100	

Majority (90%) of the respondents agreed that the circulation and accesses within the hall is average and above, while 5% believe it is fair and 3% agreed that the circulation and accesses are poor. This means that the circulation within their rooms is adequately okay.

The arrangement of your room

The arrangement	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	11	11	11
Good	59	59	70
Average	20	20	90
Fair	7	7	97
Poor	3	3	100
Total	100	100	

Majority (70%) of the respondents believe that the arrangement of the room is good and comfortable enough for them while another 7% agreed that it is fair. This implies that the arrangement of their room is okay.

Convenience of reading in the room

Convenience of reading	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	12	12	12
Good	20	20	32
Average	48	48	80
Fair	15	15	95
Poor	5	5	100
Total	100	100	

Although, reading in the room is not really encouraged by the school authority but some of the students secretly do. The data shows that about 32% can read in the room comfortably and efficiently.

Level of natural lighting

Level of natural lighting	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	46	46	46
Good	25	25	71
Average	19	19	90
Fair	9	9	99
Poor	1	1	100
Total	100	100	

From the results, majority (71%) of the students believe that the level of natural lighting is good, 19% agree it is average while minority 1% agree it is below average. This shows that the school depends largely on natural lighting.

Level of artificial lighting

Level of artificial lighting	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	46	46	46
Good	25	25	71
Average	19	19	90
Fair	9	9	99

Poor	1	1	100
Total	100	100	

The results indicated that majority (71%) of the students agreed that the level of natural lighting is good, 19% said it is average while minority (9%) agreed with fair. This shows that the school depends largely on natural lighting.

Level of artificial lighting

Level of artificial lighting	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	12	12	46
Good	33	33	71
Average	41	41	90
Fair	10	10	99
Poor	4	4	100
Total	100	100	

From the table above 71% believe that the level of natural lighting is good, 19% said it is average while 9% said it is below average. This shows that the school depends largely on natural lighting

Level of artificial lighting

Level of artificial lighting	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	12	12	12
Good	33	33	45
Average	41	41	86
Fair	10	10	96
Poor	4	4	100
Total	100	100	

45% of the respondents agreed that the level of artificial lighting provided is above average, 41% feel it is average while 14% believe it is below average. This show that the artificial lighting mainly serve as back up.

Number of Baths and WCs provided

No of Baths and WCs	Frequency	Percentage (%)	Cum. Per. (%)
Excellent	9	9	9
Good	31	31	40
Average	33	33	73
Fair	17	17	90
Poor	10	10	100
Total	100	100	

Only 40% of the respondents agreed that the number of bath and WC provided is good while 33% agreed that it is average, 17% fair and 10% poor. This shows that there is inadequacy of numbers of bath and WC provided.

Proximity of Bath and WCs within the dormitory

Proximity of Bath and WCs	Frequency	Percentage (%)	Cum. Per (%)
Excellent	36	36	36
Good	42	42	78
Average	12	12	90
Fair	6	6	96
Poor	4	4	100
Total	100	100	

About 80% of the respondent agreed that the nearness of bath and WC are above average while 10% believe it's not near enough. This means that the proximity to sanitary facilities within the dormitory is adequate.

Storage facilities provided

	Frequency	Percentage (%)	Cum. Per (%)
Excellent	16	16	16
Good	44	44	60
Average	23	23	83
Fair	10	10	93
Poor	7	7	100
Total	100	100	

From the table above, 60% of the respondents agreed that the storage facilities provided is good while 23% said it is average, 10% said it is fair and only 7% said storage facilities provided is poor. This means that Storage facilities provided are adequate.

Technical Aspect Perfomance Data Analysis
Ventilation/thermal comfort level in the room

Vent. /Therm. Comfort level	Frequency	Percentage (%)	Cum. Per (%)
Excellent	53	53	16
Good	42	42	60
Average	3	3	83
Fair	2	2	93
Poor	0	0	100
Total	100	100	

Over 90% of the respondents indicate that ventilation/ thermal comfort is good, 3% believe it is average while 2% indicates below average. This shows that there is adequate ventilation in the dormitories.

Ease of hearing others in the room

Ease of hearing others	Frequency	Percentage (%)	Cum. Per (%)
Excellent	41	41	41
Good	33	33	74
Average	11	11	85
Fair	10	10	95
Poor	5	5	100
Total	100	100	

More than 70% of the respondents agreed that the ease of hearing others in the room is above average while only 10% believe it is fair and 5% responded poor.

Location of window

Location of window	Frequency	Percentage (%)	Cum. Per (%)
Excellent	42	42	100
Good	41	41	100
Average	14	14	97
Fair	2	2	99
Poor	1	1	100
Total	100	100	

Windows are well located as over 89% of the respondents agreed that location of windows is above average, while only 3% believe it below average. This indicates that the windows are adequately located.

Ease of opening window

Ease of opening window	Frequency	Percentage (%)	Cum. Per (%)
Excellent	40	40	40
Good	23	23	63
Average	15	15	78
Fair	10	10	88
Poor	12	12	100
Total	100	100	

This implies that the ease of opening window as agreed by the respondents is averagely adequate, about 78% believe it is above average while only 22% believe it is below average. This shows that most of the students don't have problem in opening their window.

Quality of ceiling finishes

Quality of ceiling finishes	Frequency	Percentage (%)	Cum. Per (%)
Excellent	20	20	20
Good	32	32	52
Average	28	28	80

Fair	16	16	96
Poor	4	4	100
Total	100	100	

The table shows that 80% of respondents agreed that the quality of wall finishes is above average, 20% believe it's below average while 28% believe it is average.

Quality of floor finishes

Quality of floor finishes	Frequency	Percentage (%)	Cum. Per (%)
Excellent	24	24	24
Good	31	31	55
Average	29	29	84
Fair	11	11	95
Poor	5	5	100
Total	100	100	

About 84% of the respondents believe that the quality of floor finishes is average while only 11% believe it is fair and 5% poor. This means they are comfortable about the quality of floor finishes.

Water supply

Water supply	Frequency	Percentage (%)	Cum. Per (%)
Excellent	12	12	12
Good	28	28	40
Average	41	41	81
Fair	17	17	98
Poor	2	2	100
Total	100	100	

From the table, above 80% of the respondent believe that the water supply is above average while only 19% believe that it is below average. This implies that they are satisfied with the water supply.

Fire safety general

Fire safety general	Frequency	Percentage (%)	Cum. Per (%)
Excellent	17	17	17
Good	34	34	51
Average	35	35	86
Fair	14	14	90
Poor	1	1	100
Total	100	100	

The fire safety measure as deduced by the table indicated that 86% of the respondent feel is above average, 35% feel it is average while 15% believe it is below average. This indicates that there is enough fire safety gadgets in the dormitories.

Number of electrical outlet

Number of electrical outlet	Frequency	Percentage (%)	Cum. Per (%)
Excellent	30	30	30
Good	32	32	62
Average	18	18	80
Fair	15	15	95
Poor	5	5	100
Total	100	100	

About 62% of the respondent agreed that the number of electrical outlet in their room is good while 80% agreed that it is above average. Therefore, electrical outlet provided for usage like ironing of school uniform is okay.

Number of entrance and exit in the dormitory

Number of entrance and exit	Frequency	Percentage (%)	Cum. Per (%)
Excellent	34	34	34
Good	43	43	77
Average	16	16	93
Fair	5	5	98

Poor	2	2	100
Total	100	100	

From the results, 77% of the respondents believe that the number of entrance and exit in the dormitory is good while 16% of the respondent indicated average and 7% below average.

The door to the bedroom

The door to the bedroom	Frequency	Percentage (%)	Cum. Per (%)
Excellent	28	28	28
Good	49	49	77
Average	14	14	91
Fair	6	6	97
Poor	3	3	100
Total	100	100	

From the table above, more than 91% agreed that location of the door to the bedroom is above average while only 9% feel it is below average. This indicates that location of the door to the bedroom is okay.

Behavioural Aspect Perfomance Data Analysis
General view and image of the dormitory

General view and image	Frequency	Percentage (%)	Cum. Per (%)
Excellent	48	28	48
Good	20	20	68
Average	19	19	87
Fair	11	11	92
Poor	2	2	100
Total	100	100	

87% of the respondents agreed that the general view and image of their dormitory is above average, 13% feel it is below average while 19% believe it is average. This show that the general view and image of the dormitory is quite okay.

Proximity of dormitory to school area

Proximity of dormitory	Frequency	Percentage (%)	Cum. Per (%)
Excellent	40	20	40
Good	38	38	78
Average	12	12	90
Fair	8	8	98
Poor	2	2	100
Total	100	100	

From the table above, about 90% believe that the proximity of the dormitory to school area is above average while only 10% believe it is below. This indicates that the nearness of dormitory to school area is okay.

Number of persons in the room

No of persons in the room	Frequency	Percentage (%)	Cum. Per (%)
Excellent	41	41	41
Good	39	39	80
Average	16	16	96
Fair	3	3	99
Poor	1	1	100
Total	100	100	

More than 90% of the respondent agreed that the number of persons in the room is above average. This shows that the room is not overcrowded and the students are comfortable with the numbers in the room.

Level of privacy

Level of privacy	Frequency	Percentage (%)	Cum. Per (%)
Excellent	6	6	6
Good	22	22	28
Average	20	20	48
Fair	30	30	78
Poor	22	22	100

Total	100	100	

From the result above, only 28% of the respondents agreed that the level of privacy is good while 20% believe it is average and about 52% believe that it is below average. This means that the level of privacy provided is not adequate enough because a larger-percentages agreed to be fair. This confirmed previous study of Amao, 2022 on the perception of privacy in the public housing estates.

Movement within the room	Frequency		Percentage (%)	Cum. Per (%)
Excellent	28		6	28
Good	32		22	60
Average	20		20	80
Fair	16		30	96
Poor	4		22	100
Total	100		100	

Almost 60% of the respondents agreed that the movement within the room is good while only 16% agreed that it is fair and only 4% believe it is poor. This indicated that the movement within the room is averagely okay.

Room's furniture

Room's furniture	Frequency	Percentage (%)	Cum. Per (%)
Excellent	10	10	10
Good	26	26	36
Average	34	24	70
Fair	23	23	93
Poor	7	7	100
Total	100	100	

From the above, 36% of the respondents agreed that the room furniture is good. There is need for an improvement in both quality and quantity of room furniture especially cupboards which serves as one of their means of storage.

How do you relate with your roommates

Relationship with your roommates	Frequency	Percentage (%)	Cum. Per (%)
Excellent	44	44	44
Good	39	39	83
Average	6	6	89
Fair	7	7	96
Poor	4	4	100
Total	100	100	

Form the table above, about 83% of the respondents believe their relationship is above average while only 11% feel is below average. The level of relationship between roommates is very good.

Colour used in the room

Colour used in the room	Frequency	Percentage (%)	Cum. Per (%)
Excellent	16	16	16
Good	34	34	50
Average	28	28	78
Fair	16	16	94
Poor	6	6	100
Total	100	100	

The reaction of respondents to the room colour is averagely good. Over 78% agreed that it is above average while 22% believe it is below average.

How does management attend to maintenance problem?

Attend. to maint. problem	Frequency	Percentage (%)	Cum. Per (%)
Excellent	35	35	35
Good	30	30	65
Average	15	15	80
Fair	16	16	96
Poor	4	4	100
Total	100	100	

About 80% of the respondent believe that the management's attendance to maintenance problem is above average while only 20% agree it is below.

General maintenance of the dormitory

General maintenance	Frequency	Percentage (%)	Cum. Per (%)
Excellent	34	34	34
Good	31	31	65
Average	25	25	90
Fair	9	9	99
Poor	1	1	100
Total	100	100	

The general maintenance of the dormitory as recorded by respondents is 65% above average, 10% below average and 25% average.

Objective 3:
To examine the difference between the responses of the male and the females
Functional elements (sex cross tab)

Functional elements		Sex		
		Male	**Female**	**Total**
Fair	Frequency	10	8	18
	% within functional elements	55.60%	44.40%	100.00%
	% within sex	20%	16%	18%
Average	Frequency	33	31	64
	% within functional elements	51.56%	48.44%	100.00%
	% within sex	66%	62%	64%
Good	Frequency	6	10	16
	% within functional elements	37.59%	62.50%	100.00%
	% within sex	12%	20%	16%
Excellent	Frequency	1	1	2
	% within functional elements	50.00%	50.00%	100.00%
	% within sex	2%	2%	2%
Total	**Frequency**	**50**	**50**	**100**
	% within functional elements	**50.00%**	**50.00%**	**100.00%**
	% within sex	**100%**	**100%**	**100%**

From the table above, 20% of male respondents believe function elements is 55.60% fair while 16% of female believe its 44.40% fair, 66% of male believe its 51.56% average while 62% of female believes its 48.44% average, 12% of male says its 37.50% good while 20% of female says its 62.50% good. Only 2% of male and female agree it is 50% excellent.

This means that a larger percentage of the respondents both male and female accepted that functional elements within the dormitory is average. They are satisfied with the functional elements.

Technical elements (sex cross tab)

Technical elements		Sex		
		Male	**Female**	**Total**
Fair	Frequency	6	7	13
	% within functional elements	46.15%	53.85%	100.00%
	% within sex	12%	14%	13%
Average	Frequency	18	6	24
	% within functional elements	75.00%	25.00%	100.00%
	% within sex	36%	12%	24%
Good	Frequency	17	23	40
	% within functional elements	42.50%	57.50%	100.00%
	% within sex	34%	46%	40%
Excellent	Frequency	9	14	23
	% within functional elements	39.13%	60.87%	100.00%
	% within sex	18%	28%	23%
Total	**Frequency**	**50**	**50**	**100**
	% within functional elements	**50.00%**	**50.00%**	**100.00%**
	% within sex	**100%**	**100%**	**100%**

From the table above 12% of male respondents believes technical elements is 46.15% fair while 14% of female respondents believes it is 53.85% fair, 36% of male respondents feels it is 75% average while 12% of female respondents feels it is 25% average; 34% of male respondents believes its 42.50% good while 46% of female respondents believes it is 57.50% good.

This shows that attitude of male respondents to technical elements is just average. While the female respondents falls in between good and excellent. Also, few percentages of both male and female believe that the technical element within the dormitory is below average.

Behaviour elements (sex cross tab)

Behaviour elements		Sex		
		Male	**Female**	**Total**
Fair	Frequency	7	12	19
	% within functional elements	36.84%	63.16%	100.00%
	% within sex	14%	24%	19%
Average	Frequency	24	32	56
	% within functional elements	42.86%	57.14%	100.00%
	% within sex	54%	64%	56%
Good	Frequency	14	8	22
	% within functional elements	63.64%	36.36%	100.00%
	% within sex	28%	16%	22%
Excellent	Frequency	2	1	3
	% within functional elements	66.6%	33.33%	100.00%
	% within sex	4%	2%	3%
Total	**Frequency**	**50**	**50**	**100**
	% within functional elements	**5.000%**	**5.000%**	**100.00%**
	% within sex	**100%**	**100%**	**100%**

From the table above 14% of male respondents believe all behavioural elements are 36.84% fair while 24% of female believes it is 63.16% fair, 54% of male respondents believes it is 42.86% average while 64% of female agrees it is 57.14% average; 28% of male believes it is 63.64% good while 16% of female believes it is 36.36% good.

This indicates that a larger percentage of male respondents believe that the behavioural elements are above average and okay for them while the female respondents believe that it is just fair and not too satisfied with the behavioural elements. The results supported the work of Amao, 2022, which suggested that female respondents responded to some behavioural elements such as level of privacy, general view and image of a place and the relationship within the buildings differently from their male counterpart.

5.0 Recommendation and Conclusion
5.1 Applying Post Occupancy Evaluation
The data collection and analysis approach used in this post occupancy evaluation proved to be an effective way to accurately assess the success and failures of the dormitories being evaluated. The researcher was able to identify major issues regarding the performances of the hostel through questionnaire administration and internet services.

5.2 Expected Contribution
The result of the research is expected to serve as a guide in preparing a brief for:
1. Factors which affect satisfaction within dormitories of the secondary schools
2. Relative importance of these factors.

5.3 Conclusion
A thorough investigation can reveal many things about how a building actually operates. Undertaking a building evaluation is more straightforward than ever with the research methodology used for the evaluation of the building. An improved understanding of building performance can inform the design decision making of architects and engineers. It can also result in improved condition for occupants and saving for building owners. The study therefore concluded that gender played a major role in evaluation of residential facilities in the student dormitories in a secondary school.

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