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The Challenges Encountered by Mobility-Challenged Persons in Accessing Facilities in Public Buildings. (A Study of Selected Public Universities in Rivers State)

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ABSTRACT: Mobility challenge is often overlooked in the design and construction of public facilities. This could be because many do not understand the plight of physically challenged persons. It is also the reason why several regulatory bodies have devised codes and guides that will ensure that those with these challenges are considered whenever a building or facility is in the design or construction stage. This study is aimed at determining the nature of challenges faced by the mobility challenged believing that a thorough understanding of these challenges would create greater awareness in the world of design and construction of facilities. The study examined the challenges faced by mobility challenged persons in the three publicly owned tertiary institutions in Rivers state, Nigeria. Survey method was adopted in gathering data for the research. This was achieved by asking questions which gave the mobility challenged the opportunity to state in clear terms what they consider to be the greatest challenges posed to them in accessing the facilities under consideration. Findings revealed that steep entrance, insufficient corridor space, absence of ramp, insufficient door width are some of the major challenges faced by mobility challenged students using these facilities. The research recommends that there is a need for the Government at all levels to have a political will and take a giant step in ensuring that public and private buildings are accessible to mobility challenged persons in Nigeria by enacting laws which mandate accessibility as a factor that must be given strict consideration in the design and construction of buildings.

Key word: Mobility Challenged; Facility, Physically Challenged Persons, Accessibility.

I. INTRODUCTION

The global disability prevalence is higher than previous estimates (World Health Organisation (WHO), 2018). One billion people or 15% of the world's population, lives with some form of disability and disability prevalence is higher for the developing countries (Lang and Upah, 2008).Wood and Dolmage, 2018, define disabled people as "persons with physical, mental and intellectual disabilities that hindered them from fully participating in a normal way in the community way of life".

Therapists aim to encourage patients to achieve satisfaction in productive activity and personal independence by encouraging them to engage in social and functional interaction with other people and their environment" (Evcil, 2009). Therapists also strive to foster independence in all aspects of daily life. Most of these needs are presented under the umbrella term "accesses". Restriction of mobility is likely to be the most common handicap amongst persons with disabilities (Moyo, Munyonga and Useh, 2001).

Accessibility in the built environment is one of the primary concerns of urban planning and design. An urban space can be a successful public place if accessibility is provided (Hassan, Izzeddin, and Sarsak 2018). Besides this, a public place should provide accessibility to everyone, regardless of physical abilities or financial resources, because 'accessibility is thefreedom and the ease of individuals to decide to participate in different activities' (Moyo, Munyonga and Useh, 2001). Assessment of building accessibility and public accommodations is the first step in a planning process for readily achievable barrier removal (Hassan, Izzeddin, and Sarsak 2018).

A careful observation in public facilities especially high-rise buildings and other buildings such as hostels, library, school clinic, faculties, and playground within public educational institutions

indicates that there is inadequate provision from the planning, designing and construction stages for mobility challenged students on wheelchair, crutches and those with people-aided devices. This could in part be because only a few people appreciate the challenges faced by mobility challenged individuals who make use of public facilities.

Physical observations and studies from literature indicate that Nigeria has her fair share of people living with disabilities. Many of them are present in many sectors and the academic world is not an exemption. This is why it is important to take a careful investigative study into the challenges faced by physical challenged people with a view to ensure that their needs for accessibility to participate in the process of planning, designing and construction of facilities.

II. STUDY AREA

Rivers State was created in 1967 with Port Harcourt as the administrative capital. In 1987, another state, Bayelsa, was carved out of the state with a significant part of its population and geographical area ceded to the new state. Despite this development, Rivers State still stands as one of the highest oils producing states in the country, Nigeria. Its capital city, Port Harcourt, also boasts of having the highest agglomeration of oil producing companies in the country. The state is administratively made up of twenty-three local government areas housing approximately 1,108 rural communities and few underdeveloped urban centres. The state is segmented politically into "Upland and Riverine" areas because of its geographical characteristics.

Universities and colleges administered by the Government of Rivers State are in the capital city Port-Harcourt. They include Rivers State University, ElechiAmadi Polytechnic, Ignatius Ajuru University of Education and Rivers State College of Health Sciences and Technology. The notable private institutions are Catholic Institute of West Africa and Eastern Polytechnic. The latter is the first and only private polytechnic established in the state.

The public universities of interest are the University of Port Harcourt (UNIPORT), Rivers state University, and the Ignatius Ajuru University of Education. UNIPORT was established in 1975 as a University College. In 1977, it attained full university status. University of Port-Harcourt is a second -generation federal university located in the Niger – Delta region of Nigeria with over 50,000 students and a strong focus in Petroleum Engineering. UNIPORT has been ranked amongst the top ten universities in Africa and as the first in Nigeria by Times Higher Education (THE); a UK based source for higher education information

The Rivers State University Port Harcourt was established in 1980 from the Rivers State College of Science and Technology and formerly named Rivers State University of Science and Technology, Port Harcourt (RSUST) which was itself established in 1972. It is located at Nkpolu – Oroworukwo in Port Harcourt. Nigeria. It is the first technological university in Nigeria and the first state owned state university in the Niger Delta region of Nigeria. The university has seven faculties; Agriculture, Engineering, Environmental Sciences, Law, Management Sciences, Science and Technical and Science Education; and a postgraduate school. RSU has five institutes: Institute of Foundation Studies, Pollution Studies, Education, RIART, Geosciences and Space Technology.

The target populations for which this research study shall be primarily selected from these three institutions.

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Figure 1: Map of Nigeria showing Rivers state.

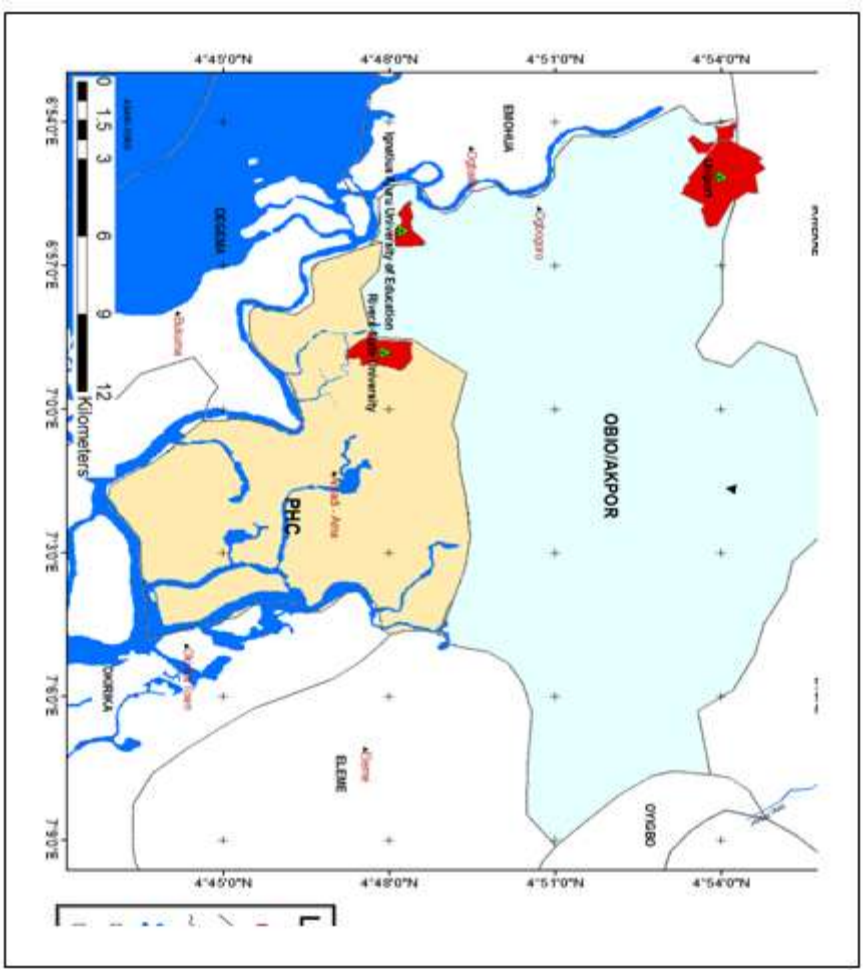

Figure 2: Rivers State Map showing study locations

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III. LITERATURE REVIEW

Challenges Faced by Mobility challenged persons in Accessing Public facilities

The mobility challenged students are faced with many challenges which have affected them in the accessibility of public facilities in the institutions. Many persons view this condition from different perspectives, such different perceptions attract different interventions from government. The challenges that mobility challenged students face cover physical (structural), emotional, economic, and psychological, educational, culture and health dimensions. The complexity of disability is that it is associated with poverty (Masarira, 2017).

Economic Challenges

Mobility challenged students are faced with countless economic challenges. These economic challenges are from family, institutional and government levels because of discrimination at the institution. Often, large populations of them are not educated so their level of participation in the economic system is limited, making them less productive because they do not have equal access to empowerment programmes in the institution like other persons (Masarira, 2017). As their economic condition cannot be compared to the others, they are not able to meet their medical needs in the form of providing special medical aids such as wheelchairs, crutches, and artificial limbs. This situation increases their poverty level and make them vulnerable in the institution (Masarira, 2017).

Physical Challenges

The Mobility challenged students are faced with difficulties in accessing various buildings. It is difficult for them to easily manoeuvre due to the discriminatory manner buildings were built which does not give the same opportunity and right which able-bodied students enjoy. Even where some buildings are provided with some equipment, they may require additional assistance to manoeuvre (Masarira, 2017). The unavailability of appliances such as wheelchairs and artificial limbs results in some disabled having to crawl or be carried on the back for them to be move from one place to another within buildings. They may not be able to participate in sports and other physical activities depriving them of opportunities available to others. Even if they are to participate, required equipment is expensive, making them not participate considering their economic limitations (Masarira, 2017).

Socio/Psychological Challenges

Mobility challenged students are faced with socio/emotional and psychological challenges due to the way institutions view their condition. People usually make negative, abusive, and unacceptable comments and remarks towards them (Masarira, 2017). These derogatory comments and remark affect them socio/emotionally and psychologically. Even some institution does not appear to regard them as humans and therefore do not give them the opportunity to participate in any form of activities, diminishing their confidence in doing things. These societal attitudes towards them are found at all levels from family, government and international (Masarira, 2017).

IV. RESEARCH METHOD

This research used survey research design, one of the designs available in the quantitative research paradigm as well as Key Informant (KI) Interviews, a qualitative research design (Cresswell, 2014). Research subjects (mobility challenged persons) were studied at one point in time, in situ, without experimental manipulation; hence the study also belongs to the class referred to as "passive-observational" (Cook and Campbell, 1979). Since two research paradigms – quantitative and qualitative -- were utilised, the study is classified as Mixed Methods Research (MMR); and because the two methods were employed contemporaneously, the specific design under MMR is described as "convergent parallel" (Cresswell, 2014). The results from the quantitative and qualitative approaches were compared or "triangulated" (Cresswell, 2014). One set of results served to enrich the other. A total of fifty-one students with varying levels of mobility challenges were interviewed in the three institutions. To ensure fairness, seventeen (17) students were selected from each of the three institutions under study.

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V. DATA ANALYSIS, RESULTS AND DISCUSSION

Table 1: Main Entrances

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	Difficulties when entering school building	16 (31.4)	7 (13.7)	13 (25.5)	13 (25.5)	2 (3.9)	**51 (100)**
2	There is no more than one entrance	10 (19.6)	12 (23.5)	5 (9.8)	19 (37.3)	5 (9.8)	**51 (100)**
3	Difficulty using the stairway	18 (36.7)	26 (53.1)	5 (10.2)	0 (0)	0 (0)	**49 (100)**

Source: Authors Field work, (2020)

Table 2: Library

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	Ramp at the library entrance is too steep	19 38.0	17 (34.0)	10 (20.0)	3 (6.0)	1 (2.0)	50 (100)
2	Library seats are not user friendly to me	8 (16.0)	16 (32.0)	19 (38.0)	5 (10.0)	2 (4.0)	50 (100)
3	The bookshelves are difficult to use independently	9 (18.0)	17 (34.0)	8 (16.0)	13 (26.0)	3 (6.0)	50 100
4	The desks are not within my reach height	8 (16.3)	19 (38.8)	13 (26.5)	9 (18.4)	0 (0)	49 (100)

Source: Authors Field work, (2020)

Table 3: Lecture Halls

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	Entrance to lecture hall is steep	20 (40.0)	12 (24.0)	16 (32.0)	2 (4.0)	0 (0)	50 (100)
2	The lecture seats are badly constructed	1 (2.0)	1 (2.0)	20 (40.0)	22 (44.0)	6 (12.0)	50 (100)
3	The lecture tables are not convenient to use)	9 (18.4)	14 (28.6)	19 (38.8)	5 (10.2)	2 (4.1)	49 (100)

Source: Authors Field work, (2020)

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4: School Hospital/Clinic

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	There is difficulty when entering the wards main entrance	12 (24.5)	19 (38.8)	14 (28.6)	4 (8.2)	0 (0)	49 (100)
2	Difficulties when getting in and out of the out-patient room	11 (22.4)	18 (36.7)	12 (24.5)	4 (8.2)	4 (8.2)	49 (100)
3	No special disabled ramps in the hospital	7 (14.3)	10 (20.4)	12 (24.5)	17 (34.7)	3 (6.1)	49 (100)
4	Difficulties when using the ramps	11 (22.9)	(16.7)	22 (45.8)	6 (12.5)	1 (2.1)	48 (100)
5	Difficulties when using the staircase	20 (40.8)	19 (38.8)	6 (12.2)	1 (2.0)	3 (6.1)	49 (100)

Source: Authors Field work, (2020)

Table 5: Horizontal/Vertical Accessibility

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	There are no protective side rails at the stairs	14 (28.0)	7 (14.0)	13 (26.0)	14 (28.0)	2 (4.0)	50 (100)
2	Difficulties when using the stairs	22 (44.0)	24 (48.0)	2 (4.0)	2 (4.0)	0 (0)	50 (100)
3	Difficulties when moving inside the corridors	2 (4.0)	10 (20.0)	13 (26.0)	19 (38.0)	6 (12.0)	50 (100)
4	The corridor spaces are insufficient for turnings and moving	10 (20.4)	3 (6.1)	10 (20.4)	23 (46.9)	3 (6.1)	49 (100)

Source: Authors Field work, (2020)

Table 6: Toilets

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	Difficulty when getting in and out of the toilet)	25 (50.0)	19 (38.0)	3 (6.0)	3 (6.0)	0 (0)	0 (100)
2	No helping side rails facilities at the toilets	14 (28.8)	24 (49.0)	9 (18.4)	1 (2.0)	1 (2.0)	49 (100)
3	Difficulties when turning and moving at the toilets	22 (44.9)	21 (42.9)	5 (10.2)	1 (2.0)	1 (0)	1 (100)

Source: Authors Field work, (2020)

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Table 7: Finishing Work

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	Floor finishes are unsuitable for movement at the school clinic	19 (38.8)	17 (34.7)	8 (16.3)	2 (4.1)	3 (6.1)	49 (100)
2	There is threat of sliding when moving at clinic floors	19 (38.0)	20 (40.0)	6 (12.0)	2 4.0	3 (6.0)	50 (100)

Source: Authors Field work, (2020)

Table 8: Doors and Spaces

S/N	Defect	Totally Agree	Agree	Neutral	Disagree	Totally Disagree	Total
1	Difficulties when getting in and out of the doors	10 (20.0)	27 (54.0)	9 (18.0)	3 (6.0)	1 (2.0)	50 (100)
2	There are difficulties when opening and closing the doors	7 (14.0)	27 (54.0)	7 (14.0)	6 (12.0)	3 (6.0)	50 (100)

Source: Authors Field work, (2020)

The results show that the respondents (mobility challenged students) in the three public universities in Nigeria did not face challenges entering into the facilities. However, they experienced difficulties in accessing places that are not on the ground level. They also had sitting challenges as they agreed that the seats were too high for them to access. The toilet facilities were also built without considering the mobility challenged as the spaces were not sufficient for moving. It was also observed from the findings that the floors could cause harm to them as the threat of sliding was detected.

VI. CONCLUSION

In conclusion, this study has shown that most of the public buildings/facilities in the selected Rivers State public institutions (three universities) were not constructed considering ease of use and access to mobility challenged persons using mobility aid. An important observation made in this study was that most of the entrances provided as link routes for access to the mobility challenged students were not totally accessible due to lack of standards. Most the ramps provided in the buildings were not gentle but steep which made them non user-friendly.

VII. RECOMMENDATIONS

To adequately cater for the needs of everyone using public facilities most especially those with mobility challenges:

There is the need for the Federal Government of Nigeria to have the political will and take a giant step in ensuring that public and private buildings are accessible to physically challenged persons in Nigeria by enacting laws which mandate accessibility.

Rivers State Government should also enact laws to protect and to improve the accessibility of physically challenged persons to public and private buildings in the state. This they can also achieved through political will and legislation. Such laws should be enforced, and defaulters appropriately punished. Both the state and federal governments should reconstruct existing buildings/facilities in the study area that are problematic to mobility challenged users.

REFERENCES

[1]. Cresswell, J. W. (2014). Research Design. Thousand Oaks. California: SAGE Publications, Inc.

[2]. Evcil A.N. (2009) Disability and Rehabilitation: Assistive Technology. Wheelchair accessibility to public facilities in Istanbul. 4(2):76–85.
[3]. for International Development. Available at: https://en.wikipedia.org/wiki/Disability_in_ Nigeria Retrieved 28th October 2020.
[4]. Lang, R and Upah, L (2016). Scoping Study: Disability in Nigeria. United Kingdom Department
[5]. Masarira, L.T. (2017). Challenges Faced by Disabled Persons and How the Government Can Intervene. Retrieved 8th October 2018 fromhttps://bulawayo24.com/index-id-opinion-sc-columnist-byo-104288.html MLA
[6]. Moyo A.M., Munyonga, E. Useh, U. (2001). Disability & Rehabilitation of public facilities in the central business district of Harare, Zimbabwe. 23(11):490–496.
[7]. Wood T, Dolmage J, Price M. (2018). Composition Studies. Where We Are: Disability and Accessibility
[8]. World Health Organization (WHO) &the World Bank Group (2011). World Report on Disability 2011 (Geneva: World Health Organization, 2011), p. 29. Retrieved on the 20th of August 2018 from www.who.int/disabilities/world_report/2011 /report.pdf