BERKELEY PUBLICATION
09.30.2019 AND RESEARCH INTERNATIONAL

Journal of Env. Design & Construction Mgt Vol. 10 No.4

PHYSICALLY CHALLENGED AND THE LEARNING ENVIRONMENT IN KADUNA STATE UNIVERSITY, KADUNA.

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ABSTRACT

Begging, accepted by many as a profession, has become a permanent feature on major streets in Nigeria especially in northern part of the country. Physically challenged people have been to a large extent erroneously certified by the society as the legitimate people to practice alms begging. Once a person is born with any form of disability, the society particularly in Northern Nigeria 'graciously and steadily' nurtures such people to a crookedly destined path of begging. This is wrong. Abled people are frown at and deemed lazy when they are seen begging; the same should apply to all including the physically challenged because there is ability in disability. Higher institutions of learning have a duty to define and set good example on how a civil society should be organized and run. This paper seeks to find out how universities and other institutions of learning with emphasis in Kaduna state university, Kaduna are leading the society to accommodate and bring out the best in all people including the physically challenged

Introduction:

Raf Young, a disabled activist, natural scientist and aspiring sportsman from London, UK was asked to state his special needs as a physically challenged person. He said;

'I specially need not to be talked about like I am the same as the other half a billion or so physically impaired people on the planet. I need to be spoken to, and about, as one man whose impairment related needs are just as individual as the rest of me. I need wheel chair access. I therefore need to live in a community which values disabled people enough to include level access in buildings and town planning.'

ISSN: 1933-5948

through adherence to building regulations and provisions. The phenomenological approach for evaluating problem based learning using case study, survey and observation tools were employed. All classes, lecture theatres, libraries, laboratories and hostels were studied. A check list was used to assess if buildings provided for learning can be effectively used by physically challenged students. The research result clearly shows that in Kaduna State University, Tafawa Belawa way, Kaduna most learning facilities do not adhere to minimum standard in building regulations and provisions for the physically challenged students.

Keywords: *Building Access, Building Regulations, Disability, Physically Challenged.*

Raf Young's answer sums it up and is an appeal to the larger society to allow them to function as any other person. Physically challenged people do not want our pity rather the society should make provision for them to function to their full potential as reported by Vincent Ujumadu in Vanguard National Newspaper of December 3, 2017.

How is Kaduna state university, Tafawa Belawa Way, Kaduna leading the society in respect of the needs of the physically challenged to acquire education and skills as students of the institution?

The Kaduna state University, Kaduna web site clearly states her mission as;

'The mission of Kaduna state university is to provide an all-round university education of the highest standard for the development of the individual and the state, while inculcating the spirit of love, tolerance, understanding and unity in the state in particular and the country in general'. Also one of the objectives of the university is, 'to encourage learning and to hold out to all persons without distinction'.

Has the university been fair in the provision of learning facilities to the physically challenged without distinction? Imagine the image below in plate 1 as that of a student going to the class, certainly, many things would be going through his or her mind toward education and life in general.

Plate. 1: Physically challenged being challenged.
Source: Google; Building Physically challenged- Image Result

THE PHYSICALLY CHALLENGED

Physical disability is not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives. The World Health Organization (WHO) describes Disabilities as umbrella term covering impairment, activity limitations and participation restrictions. Impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action, while participation restriction is a problem experienced by an individual in movement in life situations.

There are different types of disabilities which the Americans with Disabilities Act of 1990 enumerated to include the following;

- Deafness
- Blindness

- Intellectual Disability
- Partially or completely missing limbs or Mobility impairment requiring the use of wheel chair
- Autism
- Epilepsy etc.

See graphical representations of some disabilities in Plate 2 below;

Plate. 2: showing some types of Disabilities.
Source: Google; Building Physically challenged- Image Result

DATA ON THE PHYSICALLY CHALLENGED

In 2012, The WHO estimated a world population of 6.5 billion of those, nearly 650 million people, or 10% were estimated to be moderately or severely disabled.

In 2018, The International Labour Organization also estimated that about a billion people or about one seventh of the world population had disabilities 80% of them in developing countries and 80% of working age.

Excluding disabled people from the work force was reckoned to cost up to 7% of gross domestic product.

In Nigeria, Disability in Nigeria (2017) Wikipedia stated that the world report on disability published in 2011 said about 25 million Nigerians had at least one disability while 3.6 million of these had very significant difficulties in functioning. The 2006 Nigeria census reported 3, 153,169 people with disabilities, or about 2.32% of the total population of 140, 431, 790 in that year. However, the centre for citizen with disabilities, a Nigerian Non-Governmental organization claims the census did not capture the full extent of disabilities in Nigeria.

These figures are staggering; hence, sizeable and result focused considerations must be made for disabled people in our society.

WORLD FAMOUS DISABLED PEOPLE

There are many who may not be famous in the sense society deems famous but still live with, battle and overcome their disabilities every day of their lives. The list below is just a tiny fraction of the famous disabled people in the world.

- Thomas Edison

He invented the electric bulb which has become part of our daily lives. In his early life he had disability

- Franklin D. Roosevelt

Roosevelt was governor of New York state then elected president of the United State of America for four terms. He had polio.

- Stephen Hawkings

Considered as the greatest scientist of the twentieth century after Einstein, Hawkings' Big Bang theory and Black Hole theory has turned the attention of the world. He was paralyzed but could not stop him from his research work.

Indeed, there is ability in disability.

BUILDING REQUIREMENTS FOR THE PHYSICALLY CHALLENGED

The United Nations stressed the needs for people with disabilities to be fully accepted in the society they live in and to help in sustaining it (United Nations, 2004). Disabled people need to have a barrier free environment to move and

have access to buildings. This barrier free environment is divided into four interdependent groups which include;

- Local roads and paths leading to the building
- Immediate surroundings of the building
- Inside the building
- Open spaces and recreational facilities

International, national and local guidelines have been set out for the protection and easy access by disabled in public buildings. The laws stated clearly how the ramp, stair, elevator, entrance, signage etc should be designed and built. (Code of Federal Regulations, 1994; Neufert, 1984 and United Nations, 2003-04).

The target group is composed of wheel chair users, people with limited walking abilities, the sightless, and the partially sighted and hearing impaired people.

KADUNA STATE UNIVERSITY, TAFAWA BELAWA WAY, KADUNA

Established on 21st May, 2004, the school has two campuses; main campus on Tafawa Balewa way, Kaduna and Kafanchan campus as reported by the Kaduna state University web site.

The university has the following faculties; 1) Arts and Humanities 2) College of Medicine 3) Environmental Sciences 5) Pharmacy 6) Science 7) Social and Management science. There are about 39 departments.

TYPES OF BUILDING OBSERVED

This study focused on buildings situated in the Tafawa Balewa Way main campus of the university. The following are the buildings observed;

Table 1; Buildings Observed

Source; Author

Building Type	Number of Buildings Observed
Classrooms	71
Lecture Theatres	16
Libraries	2
Hostels	4
Toilets	170
Laboratories	40
Recreational	1

ISSN: 1933-5948

BUILDINGS OBSERVED AND COMPLIANT CHARACTERISTICS

- ELEVATORS AND RAMPS

All buildings that are more than three floors are required to be equipped with elevators and buildings with three floors or less should have ramps in addition to stairs to cater for the physically challenged.

Table 2; Buildings Compliance
Source; Author

Facility	Functional requirements	Number of buildings observed	Number of buildings in conformity with requirements	Number of buildings not in conformity with requirements	Percentage of conformity
Ramp	Ramp slope not greater than 1/20	29	03	26	10.34
	Landing of not less than 1.2m in length at interval of 10m and at every change in direction	29	03	26	10.34
	Ramp at or above 0.45m protected at both sides	29	03	26	10.34
	Width of ramp not less than 0.9m	29	03	26	10.34
	Non-slip ramp surface	29	03	26	10.34

ISSN: 1933-5948

	Ramp clear of obstructions	29	03	26	10.34
	Ramp clearly visible	29	02	27	6.90
Elevator	Above 3 storey	01	00	01	0.00
Stair	Minimum width of stair	42	42	00	100.00
	Intermediate landing with length not less than 1.2m	42	42	00	100.00
	Landing length at the bottom and top of stair not less than 1.2m	42	42	00	100.00
	Tread with non-slip surface	42	42	00	100.00
	Stair clearly visible	42	42	00	100.00
Entrance	Width of entrance above 1m	304	304	00	100.00
	Equipped with steps and ramp	304	3	301	0.99
	Entrance doors operate independently	304	205	99	67.43

ISSN: 1933-5948

Corridor	Difference in level along corridor	304	299	5	98.36
Rest room	Rest room identify by sign	304	143	161	47.04
	Sufficient space to maneuver a wheel chair	304	287	17	94.41
	Wash hand basin mounted between 0.8 and 0.85m	304	304	00	100.00
	Water closet and urinal mounted between 0.45 and 0.85m	304	304	00	100.00
	Grab bars installed in water closet and urinal at a height 0.85 and 0.95m	304	00	304	0.00
	Faucet easy to grip and operated with one hand	304	304	00	100.00
	Lower edge of mirror not exceeding 1m	304	00	304	0.00

ISSN: 1933-5948

	Rest room equipped with alarm system	304	00	304	0.00
	Flushing mechanism easy to operate	304	304	00	100.00
	Flooring material skid-proof, well-drained and water proof	304	304	00	100.00
	Pivoted door opens outward	304	00	304	0.00

The data in the table above clearly show the following:

- All the stairs met the building requirements for the abled and disabled students of the institutions.
- However, the requirements for designing and constructing ramps have not been adequately handled. The compliance is just around 10%.
- Entrances have good widths for wheel chairs users to have easy and unaided access to building interiors. Regrettably, less than 1% of all the entrances are equipped with both ramps and steps. What this means is that physically challenged people will be faced with difficulty as that faced by the person shown in plate 1. Both classes, theatres, laboratories, hostels, students' recreational centres are not friendly to the physically challenged.
- The rest rooms are spacious for the use of disabled people. However, the toilets are in bad state with many of them totally abandoned and put out of use. The few ones in use do not have grab bars and are not fitted with alarm systems for the safety of both abled and disabled people.

- The two libraries observed are not accommodating for the disabled users. In the main library, the corridors have difference in levels which would pose a serious challenge to the disabled. The E-library is wrongly adorned with a series of steps which would pose a nightmare for the physically challenged.

Plate. 3: showing Science Laboratory Complex.
Source: Author

- There is one building that stands out of the buildings observed. The Science laboratory complex has fully conformed to all the building requirements for the abled and disabled students. See plate 3 above for graphical representation.

CONCLUSION

The findings show that many buildings observed do not conform to the building requirements for the physically challenged.

This is a reflection of how public buildings are designed and constructed in many parts of the country.

This must change to ensure that physically challenged people are allowed to function to their full capacities for the positive growth of humanity and the earth as a whole.

REFERENCES

Barking and Dagenham (2001). Disability Language and Etiquette. Retrieved February 14, 2007 from the World Wide Web: http://www.barkingdargenham.gov.uk/6-living/accessibility/etiquette/etiquette-menu.html

Bayes, K. and Frankline, S. (1971), *Designing for the Handicapped*, George Godwin Ltd., London

Code of Federal Regulations, Reprint (1994), Excerpt from 28 CFR Part 36: *ADA Standards for Accessible Design*.

Daily Sun (Tuesday, December 5, 2006), *Lagos to provide facilities for physically challenged students*, The Sun Publishing Limited, Lagos, 16.

Ghaem, G. (1991), *Research on urban planning and architecture for disabled persons in Iran: Establishing design criteria*, Report of the CIB Expert

Goldsmith, S. (1976), *Designing for the disabled*, RIBA Publications Limited, London.

Igwe, J. M. (1998), *Enabling environment for the disabled: a review of architectural design criteria*, The Lagos Journal of Environmental Studies, 1(1) 129-133.

Neufert, E. (1984), *Architects' Data*, 2nd Ed., Williams CollinsSons & Co. Limited, London.

Physical Disability Council of Australia (PDCA), 2004, Retrieved January 1, 2007 from the world wide web: http://www.pdca.org.au/cgi-bin/pdca.pl

Saturday Tribune (30 December, 2006), *Census Result: We're 140m--- NPC*, The Tribune, Ibadan, 3.

Seminar on Building Non-Handicapping Environments, Budapest 1991, Independent Living Institute, Retrieved September 18, 2006 from the World Wide Web: http://ada.gov/adastd94.pdf, 490-580.264

Smith, V. P. and Billington, M. J. (1991), *The Building Regulations Explained and Illustrated*, Blackwell Scientific Publications, (9), 17.1 - 17.25

The Punch (Tuesday, December 26, 2006), *ACE tasks INEC on physically challenged persons*, Punch (Nig.) Limited, Lagos, 35

United Nations (2003-04), *Accessibility for the Disabled – A Design Manual for a Barrier Free Environment,* Department of Economic and Social Affairs,
Division for Social Policy and Development, Retrieved May 12, 2006 from the world wide web: www.un.org/esa/socdev/enable/designm/AD4-01.htm, 1– 133

Ward, A. P. (1979), *Organisation and procedures in the construction industry,* Macdonald and Evans Limited, Plymouth.