



THE DEVELOPMENT OF BASIC SKILLS, THE CASE STUDY OF LANDSCAPE ARCHITECTURAL DESIGN AND CONSTRUCTION FOR SUB-SAHARAN AFRICAN LANDSCAPE

BALA IBRAHIM

Jigawa State Polytechnic Dutse, Jigawa State, Nigeria.

ABSTRACT

A profession is any type of work that needs special training or a particular skill, often one that is respected because it involves a high level of education, Many researchers had been making so many recommendations regarding the desert encroachment and desertification of the African landscape, where most of such researches were recommending planting of trees, but most of those researches are not providing design for such recommendations. The landscape Architecture profession is a profession that involves the systematic design and general construction of structures for the use of living things, investigation of existing social, ecological, and soil conditions and processes in the landscape, and the design of other interventions that will produce desired outcomes. The scope of the profession is broad because they design a wide range of structures and landforms for living things, the design includes; site planning, stormwater management, erosion control, environmental restoration, parks, recreational areas, visual resource management, green infrastructure planning and provision, and private estate, and residence landscape master planning, landscape designs and constructions. The United States with a population of 334,298,347 people as of 2022, approximately has over 16,400 licensed landscape architects and Nigeria with Zero licensed landscape architects with a population of over 200,000,000 people as of the 2021 census. The study areas for this research were researches on desert encroachment and desertification in Nigeria, Two hundred researches on desert encroachment and desertification were used in Nigeria. A random sampling technique was used in selecting 50 researchers from the entire number. Findings from the study revealed the following: No Design or Landscape Design in research of desert encroachment and desertification in Nigeria, and the unavailability of Landscape Architects is the reason for not having a design or landscape design in many kinds of research of desert encroachment and desertification in Nigeria. The researcher in this study recommend the followings; Government should add more schools of Landscape Architecture in tNigeria, Government should license the existing Landscape Architects in the country, Government should make it mandatory that, all landscape design and construction should be done by a Landscape Architect in the

country, Individuals should engage Landscape Architects for their landscape works at all levels.

Keywords: Design, Desert Encroachment, desertification, Landscape Architecture, Landscape Construction, Landscape Design, Researches,

Introduction

A profession is any type of work that needs special training or a particular skill, often one that is respected because it involves a high level of education, Many researchers had been making so many recommendations regarding the desert encroachment and desertification of the African landscape, some of such researches include the planting of trees, but most of the researches are not providing design for such recommendations. The landscape Architecture profession is a profession that involves the systematic design and general construction of structures for the use of living things, investigation of existing social, ecological, and soil conditions and processes in the landscape, and the design of other interventions that will produce desired outcomes. The scope of the profession is broad because they design a wide range of structures and landforms for living things, the design includes; site planning, stormwater management, erosion control, environmental restoration, parks, recreational areas, visual resource management, green infrastructure planning and provision, and private estate, and residence landscape master planning, landscape designs and constructions. The United States with a population of 334,298,347 people as of 2022, approximately has over 16,400 licensed landscape architects and Nigeria with Zero licensed landscape architects with a population of over 200,000,000 people as of 2021.

The limited number of professionals or licensed Landscape Architects in Nigeria is affecting the development of basic trade skills in landscape design, leading to many kinds of research in the country with failed recommendations, sometimes due to poor site analysis, landscape planning, design and construction in the African landscape.

Conceptual Framework

Goodey B, (1992) As landscape architects and designers, we need to keep up to date with the latest industry trends, regulations, and technologies and improve our base design and technical knowledge. Also, many landscape architecture organisations and institutes require members to under a certain number of hours or accumulate points as part of their Continued Professional Development.

Development of profession of Landscape Architecture in Nigeria

After much procrastination and various other difficulties, two Master of Landscape Architecture (MLA) programmes were established in two Nigerian Universities, the University of Lagos in 2007, and Ahmadu Bello University Zaria in 2009. The

programmes were established under the Department of Architecture of both schools. presently Nigeria has many professionals with Master's degrees in Landscape Architecture Profession. Fifty-Eight of them were registered with the (SLAN) Society of Landscape Architects of Nigeria and waiting to be licensed by the Authority concerned in Nigeria. Before the development of the profession generally, landscape failures were because of;

Unprofessional Planning	Inadequate Curing
Unprofessional Design	Inadequate
Unprofessional Bill of quantities	Maintenance
Unprofessional Construction	Fire problem
	Natural phenomena

Methodology

This chapter covers the description and discussion on the various techniques and procedures used in the study to collect and analyse the data as it is deemed appropriate

Research Design

According to (John O. S, 2010) research designs are often referred to as the structuring of investigation aimed at identifying variables and their relationships to one another. In this study, questionnaire serves as useful guide to the effort of generating data for this study. The questionnaire is a survey method and it is an exploratory research.

Area Of The Study

The study area for this research were researches on desert encroachment and desertification in Nigeria.

Numbers Of The Study Used

Two hundred researches on desert encroachment and desertification were used in Nigeria.

Sample Of The Study

Random sampling technique was used in selecting 50 researches from the entire numbers. This was chosen due to the financial strength of the researcher coupled with time constraints.

Instrument For Data Collection

These are the tools or methods used in getting data from Researchers. In this study, questionnaires is the research instruments used. Questionnaire is the main research instrument used for the study to gather necessary data from the samples. The questionnaire is structured type and provides answers to the research questions and hypotheses therein.

This instrument is divided and limited into two sections; Section A and B. Section A deals with the personal data of the developers while Section B contains research statement postulated in line with the research question and hypothesis in chapter one. Options or alternatives are provided for each respondent to pick or tick one of the options.

Reliability And Validity Of Instrument

Reliability means the accuracy of precision of a measuring instrument while validity means the extent to which the research instrument measures what it is supposed to measure. In order to determine the reliability and validity of the study, the test-retest method was used

Techniques Of Data Analysis

Having gathered the data through the administration of questionnaire, the collected data will be coded, tabulated, and analyzed according to the research question and hypothesis.

In order to analyze the data collected effectively and efficiently for easy management and accuracy, the simple percentage method was the analytical tools used for this research project and a sample size of two hundred (200) will be represented by 100% for easy analysis of the responses.

Also, Chi-square statistical analytical method will be used in the research work chi-square as a statistical technique is used in testing of hypothesis so as to predict what the relationship between two variables should be. It is used in drawing and reaching conclusion by collecting the observed values from the questionnaire administered to the researches, testing the degree of freedom and carrying out a decision in determining the critical value of the hypothesis. The formular being

X^2	=	$\frac{(FO-FE)^2}{FE}$
Where O	=	Observed Frequency
E	=	Expected Frequency

The X^2 value obtained from the formular is compared with the value of tabulated X^2 for a given significance level and degree of freedom.

Data presentation, Analysis and Interpretation

This chapter is devoted to the presentation, analysis and interpretation of the data gathered in the course of this study. The data are based on the number of copies of the questionnaire completed and returned by the developers. The data are presented in tables and the analysis is done using the chi-square test.

Data Presentation and Analysis

Tables Based On Research Questions

Table 1 No Landscape Design in researches of desert encroachment and desertification in Nigeria.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	25	50.0	50.0	50.0
	Agree	10	20.0	20.0	70.0
	Undecided	5	10.0	10.0	80.0
	Disagree	6	12.0	12.0	92.0
	strongly disagree	4	8.0	8.0	100.0

	Total	50	100.0	100.0	
--	-------	----	-------	-------	--

Source: Field survey, December 2021.

From table 1 above, responses from the researches show that 25 of the researches representing 50.0percent strongly show that no any design or landscape design in the researches. 10 of the researches representing 20.0percent agreed that no any design or landscape design in the researches. 5 of the researches representing 10.0percent were undecided that no any design or landscape design in the researches. 5 of the developers representing 12.0percent disagreed that no any design or landscape design in the researches.

While the remaining 4 researches representing 8.0percent strongly disagree that no any design or landscape design in the researches.

Table 2 Unavailability of Landscape Architects is the reason for not having a design or landscape design in many researches of desert encroachment and desertification in Nigeria.

	Frequen cy	Percent	Valid Percent	Cumulative Percent
Vali strongly agree d	26	52.0	52.0	52.0
Agree	14	28.0	28.0	80.0
Disagree	5	10.0	10.0	90.0
strongly disagree	5	10.0	10.0	100.0
Total	50	100.0	100.0	

Source: Field survey, December 2021.

Table 2 above shows that unavailability of Landscape Architects is the reason for not having a design or landscape design in many researches of desert encroachment and desertification in Nigeria. 26 of the researches representing 52.0percent strongly agreed. 14 of the researches representing 28.0percent agreed.

5 of the researches representing 10.0percent were undecided.

5 of the researches representing 10.0percent disagreed.

While the remaining 5 of the developers representing 10.0percent strongly disagreed

Research Hypothesis

H₀: No Design or Landscape Design in researches of desert encroachment and desertification in Nigeria.

H₁: Unavailability of Landscape Architects is the reason for not having a design or landscape design in many researches of desert encroachment and desertification in Nigeria. Level of significance: 0.05

Decision Rule: Reject the null hypothesis if the p-value is less than the level of significance, accept the null hypothesis if otherwise. **Test Statistics**

Unavailability of Landscape Architects is the reason for not having a design or landscape design in many researches of desert encroachment and desertification in Nigeria.	
Chi-Square	173.474 ^a
Df	4

Asymp. Sig.	.000
-------------	------

a 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 46.4.

Conclusion based on the decision rule:

Since the p-value (0.000) is less than the level of significance (0.05), we reject the null hypothesis and accept the alternative thereby concluding that the unavailability of Landscape Architects is the reason for not having a design or landscape design in many researches of desert encroachment and desertification in Nigeria.

Summary of the Findings, Conclusion and Recommendations

Findings from the study revealed the following:

- No Design or Landscape Design in research of desert encroachment and desertification in Nigeria.
- The unavailability of Landscape Architects is the reason for not having a design or landscape design in many kinds of research on desert encroachment and desertification in Nigeria.

The following conclusions and recommendations are based on the most significant assessment deployed after checking research on desertification and desert encroachment in Nigeria.

The researcher in this study hereby recommends the followings:

- Government should add more schools of Landscape Architecture in the country.
- Government should license the existing Landscape Architects in the country.
- Government should make it mandatory that, all landscape design and construction should be done by a Landscape Architect in the country.
- Individuals should engage Landscape Architects for their landscape works.

References

- Charles T. Fen Y. Mix methods sampling: A typology with examples. Journal of mixed methods research. 2007. p. 77-100.
- CR Kothari. Research Methodology Methods and Techniques. 2nd ed. revised edition. New age international publishers; 1995. p. 55-67.
- John O. S. (2010) Landscape Architecture, John Orms bee Simonds, (2010), McGraw-Hill Book Company, Inc. Elsevier N. H, (2008) Landscape Architecture Construction, Land phair, Howard C. and Fred Klatt, Jr., New York: Elsevier North Holland, Inc., 2008.
- Goodey B, (1992) Perception of the Environment: An Introduction to the Literature, Goodey, B., The University of Birmingham Centre for Urban and Regional Studies: Research Publication Services Ltd., 1992.
- Lawn, The, Virginia Scott Jenkins, 1994, The Smithsonian Institute OSD Sustainable Planning: A Multi-Service Assessment 1999 Joint Services Pollution Prevention Opportunity Handbook Navy Environmental Quality Initiative Web Resource Center
- Lavrakas PI. Non probability sampling Encyclopaedia of survey research methods; 2008.
- Sir Geoffrey Jellicoe, Susan Jellicoe, The Landscape of Man: Shaping the Environment from Prehistory to the Present Day ISBN 9780500274316
- The American Society of Landscape Architects 636 Eye Street NW Washington, D.C. 20001-3736