

**PERCEPTION OF ARCHITECTURE STUDENTS' LEARNING
ENVIRONMENT AND APPROACHES ON ACADEMIC PERFORMANCE
OF ARCHITECTURE STUDENTS IN UNIVERSITIES IN SOUTHSOUTH
NIGERIA**

BY

SEN GABRIEL IWUA

MATRIC NUMBER: 16PCA01316

AUGUST 2021

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SEN GABRIEL IWUA

MATRIC NUMBER: 16PCA01316.

B.SC (HONS) ARCHITECTURE, NSUKKA

M.SC. ARCHITECTURE, NSUKKA

**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES,
COVENANT UNIVERSITY, IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF A DOCTOR OF PHILOSOPHY (Ph.D) IN THE DEPARTMENT
OF ARCHITECTURE, COLLEGE OF SCIENCE AND TECHNOLOGY, COVENANT
UNIVERSITY, CANAANLAND, OTA, OGUN STATE, NIGERIA.**

AUGUST 2021

ACCEPTANCE

This is to attest that this thesis is accepted in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy (Ph.D) in Architecture, College of Science and Technology, Covenant University, Ota.

MR. JOHN A. PHILIP

Secretary, School of Postgraduate Studies

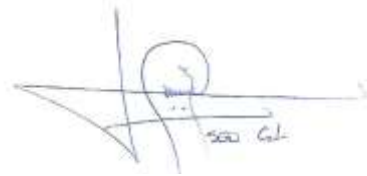
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DECLARATION

I, SEN, GABRIEL IWUA (**16PCA01316**) declared that this research was carried out by me under the supervision of Professor Albert B. Adeboye and Dr. Oluwole A. Alagbe of the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun State Nigeria. I attest that the thesis has not been presented either wholly or partially for the award of any degree elsewhere. All the sources of data and scholarly information used in this thesis are duly acknowledged.

SEN, GABRIEL IWUA



.....

CERTIFICATION

This thesis entitled “**Perception of Architecture Students’ Learning Environment and Approaches on Academic Performance of Architecture Students in Universities in Southsouth Nigeria**” is an original work carried out by SEN, GABRIEL IWUA (16PCA01316) in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun State, Nigeria under the supervision of Prof. Albert B. Adeboye and Dr. Oluwole A. Alagbe. We have examined and found the work acceptable as part of the requirements for the award of Doctor of Philosophy (PhD) degree in Architecture.

Prof. Albert B. Adeboye
Supervisor

.....
Signature and Date

Dr. Oluwole A. Alagbe
Co- Supervisor

.....
Signature and Date

Prof. Akunnaya P. Opoko
Head of Department

.....
Signature and Date

Prof. Akan B. Williams
(Dean, School of Postgraduate Studies)

.....
Signature and Date

DEDICATION

I dedicate this work to God, the One that created me and gave me the required strength throughout the programmed.

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LIST OF ABBREVIATIONS

AAU:	Ambrose Alli University
ARCON:	Architects Registration Council of Nigeria
CGPA:	Cumulative Grade Point Average
CRUTECH:	Cross River University of Technology
DA:	Deep Approach
LE:	Learning Environment
NUC:	National Universities Commission
RSU:	Rivers State University
SLA:	Students Learning Approach
SA:	Surface Approach
TETFUND:	Tertiary Education Trust Fund
UNIUYO:	University of Uyo, Uyo
NCAST:	Nigerian College of Arts, Science & Technology
CEQ:	Course Experience Question
PCA:	Principal Component Analysis
UNESCO:	United Nations Educational, Science and Cultural Education
SIWES:	Student Industrial Work Experience Scheme
PBL:	Problem Based Learning
SPQ:	Students Processing Questionnaire
GPA:	Grade Point Average
OECD:	Organization for Economic Cooperation and Development
DREEM:	Dundee Ready Education Environment Measure
ASI:	Approaches to Study Inventory
ETLQ:	Experience of Teaching and Learning Questionnaire
ASSIST:	Approaches and Study Skills Inventory for Students
PLE:	Powerful Learning Environment
BMAS:	Benchmark Minimum Academic Standard
ASUU:	Academic Staff Union of Universities

Abstract

Architectural education has been accused of falling standard as evident in the failure of architecture graduates in their professional examinations besides other deficiencies. This, from previous studies is traceable to poor academic performance which could be from several factors like students' learning environment and their learning approaches. The study investigated effects of architecture students' learning environment and their learning approaches on their academic performance. The objectives were: To examine the demographic characteristics of architecture students; to investigate how architecture students perceive their learning environment; to examine the predominance and disparity in learning approaches of students; to examine the academic performance of architecture students and lastly; to examine the effects of the architecture students' demographic characteristics, their perceptions of learning environment and, their learning approaches on, their academic performance. Census sampling technique was used. The sample was undergraduate architecture students in years two, three, four and second year architecture post graduate students from four universities in Southsouth Nigeria namely: Rivers State University, Port Harcourt (RSU); Ambrose Ali University, Ekpoma (AAU); University of Uyo, Uyo (UNIUYO) and Cross River State University of Technology, Calabar (CRUTECH). Thematic analysis, Descriptive analysis, t-test, one way ANOVA and categorical regression were used for data analysis. Self-report questionnaires and Interview guides were used. Two Factor Study Process (R-SPQ-2F) questionnaires were used to measure students learning approaches. Results revealed factors of students learning environment as; Quality Teaching, Students Collaborative Learning, Academic Organization, Shared Control and Assessment. Furthermore, students' predominantly used deep learning approaches ($M = 32.71$, $SD = 6.99$) over surface learning approaches ($M = 27.95$, $SD = 6.58$). The difference of means between students' deep learning approaches of RSU and CRUTECH was statistically significant (3.06, 95% CI (1.36, 4.77), $p < 0.0005$) and that of AAU and CRUTECH was statistically significant (3.47, 95%, CI (1.51, 5.42), $p < 0.0005$) similarly, that of UNIUYO and CRUTECH was statistically significant (3.37, 95%, CI (1.71, 5.04), $p < 0.0005$). Furthermore, that of surface learning approaches of CRUTECH and AAU (2.35, 95%, CI (0.54, 4.17), $p = 0.005$) was statistically significant. Categorical regression revealed that, demographic characteristics accounted for 6.6% ($R^2 = 0.066$, $p < 0.0005$) of the variance in academic performance while students' demographic characteristics, their learning environment and their learning approaches collectively accounted for 12.9% ($R^2 = 0.129$, $p < 0.0005$) of academic performance. Qualitative teaching ($\beta = -0.467$, $p < 0.0005$) and surface learning approaches negatively and uniquely contributed to a proportion of variance in academic performance ($\beta = -0.289$, $p < 0.0005$). Students collaborative learning ($\beta = 0.176$, $p < 0.0005$) and deep learning approaches ($\beta = 0.321$, $p < 0.0005$) uniquely and positively contributed to the variance in academic performance. Recommendation is that architecture educators adopt and increase instructional methods for social learning and deep learning approaches like; field trips, group assignments and problem-based learning particularly for theory-based courses. The study recommends further research using lager samples including private owned universities for comparison of results.

Keywords Architecture education; Learning environment; Learning approaches; Academic performance, Nigeria