

**IMPACT OF CLASSROOM ARCHITECTURE ON STUDENTS' LEARNING
OUTCOMES IN SELECTED SECONDARY SCHOOLS IN LAGOS STATE,
NIGERIA**

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(07CA05657)

DECEMBER, 2020

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**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES
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COLLEGE OF SCIENCE AND TECHNOLOGY, COVENANT UNIVERSITY,
OTA.**

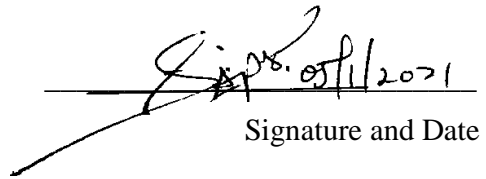
DECEMBER, 2020

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 in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Nigeria

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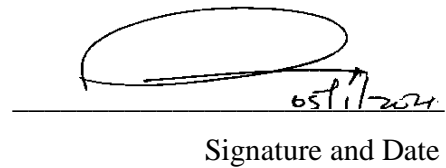
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Signature and Date

DECLARATION

I, **OWOSEN, ABRAHAM OLUWAKAYODE (07CA05657)** declare that this research was carried out by me under the supervision of Prof. Eziyi O. Ibem and Dr. Akunnaya P. Opoko of the Department of Architecture, College of Science and Technology, Covenant University, Ota, Nigeria. I attest that the thesis has not been presented either wholly or partially for the award of any degree elsewhere. All sources of data and scholarly information used in this thesis are duly acknowledged.

OWOSEN, ABRAHAM OLUWAKAYODE

A handwritten signature in black ink, followed by the date '22/12/20'. The signature is written over a horizontal line.

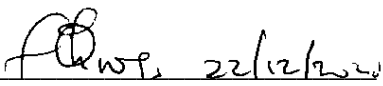
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CERTIFICATION

We certify that this thesis titled “**Impact of Classroom Architecture on Students’ Learning Outcomes in Selected Secondary Schools in Lagos State, Nigeria**” is an original research work carried out by **OWOSEN, ABRAHAM OLUWAKAYODE (07CA05657)** in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun State, Nigeria under the supervision of Prof. Eziyi O. Ibem and Dr. Akunnaya P. Opoko. We have examined and found this work acceptable as part of the requirements for the award of Doctor of Philosophy (Ph.D) degree in Architecture.

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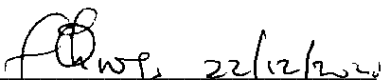
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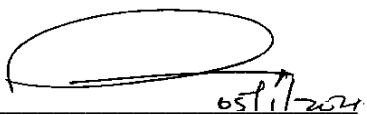
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DEDICATION

This research is dedicated to the God of all flesh, the source of all wisdom, inspiration and purpose for His predestination and grace.

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TABLE OF CONTENTS

| CONTENT | Page |
|---|-----------|
| COVER PAGE | |
| TITLE PAGE | ii |
| ACCEPTANCE | iii |
| DECLARATION | iv |
| CERTIFICATION | v |
| DEDICATION | vi |
| ACKNOWLEDGEMENTS | vii |
| TABLE OF CONTENTS | ix |
| LIST OF FIGURES | xx |
| LIST OF TABLES | xiv |
| LIST OF PLATES | xxii |
| LIST OF ABBREVIATIONS | xxvi |
| ABSTRACT | xxvii |
| | |
| CHAPTER ONE:INTRODUCTION | 2 |
| 1.1 Background to the Study | 2 |
| 1.2 Statement of the Research Problem | 5 |
| 1.3 Research Questions | 7 |
| 1.4 Aim of the Research | 8 |
| 1.5 Objectives of the Research | 8 |
| 1.6 Justification for the Study | 8 |
| 1.7 Scope of the Study | 9 |
| 1.8 Context of the Study | 9 |
| 1.8.1 The Structure of Education in Nigeria | 10 |
| 1.8.2 Basic Education in Nigeria | 12 |
| 1.8.3 Post-Basic and Senior Secondary Education in Nigeria | 12 |
| 1.8.4 Public and Private Provision of Education in Lagos State | 13 |
| 1.9 Key Definitions and Concepts | 14 |
| CHAPTER TWO:LITERATURE REVIEW | 15 |
| 2.1 The Concept of Learning, Learning Outcomes, and Learning Styles | 15 |
| 2.2 Relationship of Learning Styles and Learning Outcomes | 18 |
| 2.3 The Concept of Learning Environment | 19 |
| 2.3.1 Concept of Classroom Architecture | 21 |
| 2.3.2 Active Learning Classroom | 23 |

| | | |
|---------|---|-----------|
| 2.4 | The Concept of Socio-economic Characteristics on Learning Outcomes | 23 |
| 2.5 | Relationships between Learning Styles, Learning Outcomes and Learning Environment | 24 |
| 2.6 | Components of the Physical Learning Environment | 28 |
| 2.6.1 | Lighting | 29 |
| 2.6.2 | Air Quality and Ventilation | 29 |
| 2.6.3 | Temperature and Thermal Comfort | 30 |
| 2.6.4 | Acoustics and Noise Level | 31 |
| 2.6.5 | Nature and Adjoining Outdoor Views | 31 |
| 2.6.6 | Furniture and its Arrangement in the Classroom Environment | 32 |
| 2.6.7 | Technology and ICT Facilities | 34 |
| 2.6.8 | Objects and Decor | 35 |
| 2.6.9 | Colour | 36 |
| 2.7 | Empirical Studies of Learning Environments and Learning Outcomes | 38 |
| 2.8 | Other Related Concepts of the Physical Learning Environment | 43 |
| 2.8.1 | Connection, Accessibility and Way-Finding | 43 |
| 2.8.2 | Classroom Layout, Form and Size | 43 |
| 2.8.3 | Flexibility of Learning Spaces | 44 |
| 2.8.4 | Ownership and Territoriality in Learning Spaces | 45 |
| 2.9 | Theoretical and Conceptual Framework for the Study | 45 |
| 2.9.1 | Theoretical Framework | 45 |
| 2.9.1.1 | Constructivism Theory | 45 |
| 2.9.1.2 | Dale's Cone of Experience | 46 |
| 2.9.1.3 | Stimulus-Organism-Response-Model | 47 |
| 2.9.2 | Conceptual Framework | 49 |
| 2.10 | Gaps identified in the Literature | 52 |
| | CHAPTER THREE: METHODOLOGY | 54 |
| 3.1 | Research Philosophy | 54 |
| 3.2 | Research Approach | 54 |
| 3.3 | Research strategy | 54 |
| 3.4 | Study Population | 55 |
| 3.5 | Sampling Technique | 57 |
| 3.6 | Sample Size Determination | 57 |
| 3.7 | Data Collection Instruments | 58 |
| 3.8 | Operationalisation of Variables for the Study | 59 |
| 3.9 | Data Treatment by Objectives | 70 |

| | | |
|-------|---|------------|
| 3.9.1 | Objective 1 | 70 |
| 3.9.2 | Objective 2 | 70 |
| 3.9.3 | Objective 3 | 71 |
| 3.9.4 | Objective 4 | 71 |
| 3.9.5 | Objective 5 | 72 |
| 3.10 | Validity and Reliability | 72 |
| 3.11 | Ethical Considerations | 73 |
| | CHAPTER FOUR:RESULTS | 75 |
| 4.1 | Data Presentation | 75 |
| 4.2 | Socio-Economic Characteristics of Students in Selected Secondary Schools | 77 |
| 4.3 | Learning Styles of Students in the Selected Secondary Schools | 80 |
| 4.3.1 | Learning Best in Class | 80 |
| 4.3.2 | Distraction in Class | 81 |
| 4.3.3 | Discipline in class | 81 |
| 4.3.4 | Learning New Skills | 82 |
| 4.3.5 | Idleness in class | 82 |
| 4.3.6 | Students' Preference to Learning | 83 |
| 4.3.7 | Students' Preference to Teachers | 83 |
| 4.3.8 | Students' Intellectual Strength | 84 |
| 4.4 | The Current State of Students' Learning Outcomes in the Selected Schools | 84 |
| 4.4.1 | Learning Outcomes: Academic Performance (Cognitive) | 84 |
| 4.4.2 | Learning Outcomes: Student Engagement (Affective) | 85 |
| 4.4.3 | Learning Outcomes: Behavioural Tendencies (Behavioural) | 86 |
| 4.5 | The Physical Components of the Classroom Architecture and Their Current State in Selected Secondary Schools | 90 |
| 4.6 | Students' Perception of the Adequacy of the Physical Environment of Their Classrooms in Supporting Learning | 140 |
| 4.7 | The Influence of the Physical Learning Environment of Classrooms on Students' Learning Outcomes | 148 |
| 4.8. | Validation of the Conceptual Framework of the Study | 176 |
| | CHAPTER FIVE:DISCUSSION | 180 |
| 5.1 | Socio-Economic Characteristics of Students in Selected Secondary Schools | 180 |
| 5.2 | Learning Styles of Students in the Selected Secondary Schools | 181 |
| 5.3 | Current State of Students' Learning Outcomes in the Selected Schools | 184 |
| 5.4 | Physical Components of the Classroom Architecture and The Current State in Selected Secondary Schools | 185 |

| | | |
|--|---|------------|
| 5.5 | Students' Perception of the Adequacy of the Physical Environment of Their Classrooms in Supporting Learning | 187 |
| 5.6 | The Influence of the Physical Learning Environment of Classrooms on Students' Learning Outcomes | 188 |
| CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS | | 197 |
| 6.1 | Summary | 197 |
| 6.2 | Conclusion | 199 |
| 6.3 | Contribution to Knowledge | 200 |
| 6.4 | Recomendations | 201 |
| 6.4.1 | Limitations to the Study | 202 |
| 6.4.2 | Areas for Further Research | 202 |
| REFERENCES | | 204 |

LIST OF FIGURES

| Figures | Title of Figures | Pages |
|----------------|---|--------------|
| 1.1 | The map of Lagos State and the Local Government Areas | 7 |
| 2.1 | Passive and active teaching styles/methods. | 13 |
| 2.2 | The Indicators for Learning Outcomes | 14 |
| 2.3 | The three aspects of learning environment | 18 |
| 2.4 | A classroom with several good features of flexibility | 19 |
| 2.5 | Different forms of ventilation adopted in classrooms | 26 |
| 2. 6 | An outdoor classroom | 28 |
| 2.7 | Compact collaborative learning desks | 29 |
| 2.8 | The learning effect of colours | 32 |
| 2.9 | Colour Tones for Education | 33 |
| 2.10 | Some features of the classroom Learning Environment | 39 |
| 2.11 | The Dale's Cone of Experience | 42 |
| 2.12 | Describing the Stimulus-Organism-Response-Model | 42 |
| 2.13 | The Stimulus-Organism-Response (S-O-R) Framework | 43 |
| 2.14 | Conceptual Framework for the Study | 46 |
| 3.1 | Map of Lagos State showing the three (3) senatorial districts | 50 |
| 4.1 | Distribution of the Respondents across the senatorial districts of the study area | 73 |
| 4.2 | Age of the Respondents | 75 |
| 4.3 | Daily Means of Transportation of Respondents to School | 77 |
| 4.4 | Learning approaches of students in the class | 78 |
| 4.5 | Causes of distraction in class | 79 |
| 4.6 | Activities that warrant students' discipline in class | 79 |
| 4.7 | Students' preference to learning new skills | 80 |
| 4.8 | Students' preference when idle in class | 80 |
| 4.9 | Students' preference to learning in class | 81 |
| 4.10 | Students' preference to teachers in class | 81 |

| | | |
|------|---|-----|
| 4.11 | Students' intellectual strength and aligning learning styles | 82 |
| 4.12 | Punctuality and extent of arrival to school | 85 |
| 4.13 | Frequency of absent students in school the previous term | 85 |
| 4.14 | Main reasons for absenteeism by the respondents in the previous term | 86 |
| 4.15 | Frequency of disciplinary verdicts received by students in the previous session. | 86 |
| 4.16 | Disruption of class organisation and orderliness | 87 |
| 4.17 | The overall impact of the physical learning environment of classrooms on students' learning outcomes | 173 |
| 4.18 | Cross-tabulation of the overall impact of the physical learning environment of classrooms on students' learning outcomes in the selected private and public schools | 173 |
| 4.19 | Validated Conceptual Framework | 177 |

LIST OF TABLES

| Tables | Title of Tables | Pages |
|---------------|---|--------------|
| 1.1 | Education-related responsibilities of the three tiers of government on Education | 9 |
| 2.1 | Summary of Findings of Previous Similar Studies on the Impact of Classroom Architecture | 34 |
| 3.1 | The Status and Ownership Structure of Private Schools in Lagos | 51 |
| 3.2 | Distribution of Approved Secondary Schools across the Three Senatorial Districts and Their Corresponding Local Government Areas in Lagos State. | 51 |
| 3.3 | Sample Frame of Approved Senior Secondary Schools in Lagos | 52 |
| 3.4 | Study Population of Students in the Selected Secondary Schools | 53 |
| 3.5 | Operationalisation of Variables for the Study | 55 |
| 3.6 | Alpha Cronbach test to measure the reliability of the instrument 1 | 67 |
| 3.7 | Alpha Cronbach test to measure the reliability of the instrument 2 | 68 |
| 4.1 | Spread of respondents across the selected schools | 73 |
| 4.2 | Data spread of selected schools and research instrument distribution | 74 |
| 4.3 | Gender spread of respondents in the study area | 75 |
| 4.4 | Class spread of respondents in the study area | 76 |
| 4.5 | Type of Residential Accommodation Respondents Lived in | 76 |
| 4.6 | Tenure-ship/Ownership of Residences Respondents Lived in | 77 |
| 4.7 | Academic performance of students in the previous academic term | 82 |
| 4.8 | Frequency of Students Answering Questions in Class | 83 |
| 4.9 | Frequency of Students' Answering Questions in Class | 83 |
| 4.10 | Frequency of Students' Asking Questions in Class | 84 |
| 4.11 | Level of Students' Interaction in Group Works and Tasks | 84 |

| | | |
|------|---|-----|
| 4.12 | Students involvement in vandalism of any school property in the classroom before | 87 |
| 4.13 | Components of the classroom physical learning environment in the selected schools | 88 |
| 4.14 | Description of the components of the classroom physical learning environment at Lagos City Model College, Sabo-Yaba | 97 |
| 4.15 | Description of the components of the classroom physical learning environment at Lead-Forte Gate College | 101 |
| 4.16 | Description of the components of the classroom physical learning environment at Meadow Hall College, Lekki, Lagos | 105 |
| 4.17 | Description of the components of the classroom physical learning environment at Western Gate College, Yaba | 109 |
| 4.18 | Description of the components of the classroom physical learning environment at Ikosi Senior High School, Ikosi-Ketu, Lagos | 113 |
| 4.19 | Description of the components of the classroom physical learning environment at Avit College, Ikorodu, Lagos | 118 |
| 4.20 | Description of the components of the classroom physical learning environment at Bellina College, Akoka, Lagos | 120 |
| 4.21 | Description of the components of the classroom physical learning environment at Jextoban Secondary School, Ketu, Lagos | 123 |
| 4.22 | Description of the components of the classroom physical learning environment at Dairy Farm Senior Secondary School, Agege, Lagos | 126 |
| 4.23 | Description of the components of the classroom physical learning environment at Dansol High School, Ikeja, Lagos | 130 |
| 4.24 | Description of the components of the classroom physical learning environment at Ezekiel International College, Iju, Lagos | 133 |
| 4.25 | Description of the components of the classroom physical learning environment at Home Science Association Secondary School, Alakuko, Lagos | 136 |
| 4.26 | Adequacy of doors in the classroom in supporting learning | 138 |
| 4.27 | Adequacy of windows in the classroom in supporting learning | 139 |

| | | |
|------|--|-----|
| 4.28 | Adequacy of Window blind/drapes in the classroom in supporting learning | 139 |
| 4.29 | Adequacy of Ceiling in the classroom in supporting learning | 140 |
| 4.30 | Adequacy of lighting fittings in the classroom in supporting learning | 140 |
| 4.31 | Adequacy of Natural lighting/daylight in the classroom in supporting learning | 140 |
| 4.32 | Adequacy of furniture in the classroom in supporting learning | 141 |
| 4.33 | Adequacy of White / Chalkboard in the classroom in supporting learning | 141 |
| 4.34 | Adequacy of Storage lockers in the classroom in supporting learning | 142 |
| 4.35 | Adequacy of Wall posters frames & decorations in the classroom in supporting learning | 142 |
| 4.36 | Adequacy of Fans / Air conditioners in the classroom in supporting learning | 142 |
| 4.37 | Adequacy of Natural ventilation in the classroom in supporting learning | 143 |
| 4.38 | Adequacy of ICT facilities: Internet access in the classroom in supporting learning | 143 |
| 4.39 | Adequacy of ICT facilities: Computer/mobile t in the classroom in supporting learning | 144 |
| 4.40 | Adequacy of ICT facilities: Smartboard/screens/projector screens and multi-media in the classroom in supporting learning | 144 |
| 4.41 | Ranking of Adequacy of Components in the Classroom Learning Environment | 145 |
| 4.42 | Factor Analysis of the adequacy of components of the physical learning environment | 146 |
| 4.43 | Extent to which lighting in the classroom aids excellent visibility and illumination | 147 |
| 4.44 | Extent to which students can see the white/chalkboard clearly in classroom | 147 |

| | | |
|------|--|-----|
| 4.45 | Extent to which the use of blinds can help to control glare from the natural daylighting into the classroom | 148 |
| 4.46 | Extent to which lighting and electrical controls are easily accessible in the classroom | 148 |
| 4.47 | Extent of obstruction to natural lighting into the classroom (such as a blocked window) | 149 |
| 4.48 | Extent to which adequate ventilation is conducive enough for learning | 149 |
| 4.49 | Extent to which fresh air makes the class conducive for learning | 150 |
| 4.50 | Extent to which the size of open-able windows in the classroom is large enough | 150 |
| 4.51 | Extent of obstruction to ventilation / free air circulation | 150 |
| 4.52 | Extent to which noise hinders comprehension in class | 151 |
| 4.53 | Extent to which noise makes it difficult to focus on a particular task in the classroom | 151 |
| 4.54 | Extent to hear quickly and audibly in classroom | 151 |
| 4.55 | Extent of noise heard from outside during class sessions | 152 |
| 4.56 | Extent of good view a student has from the classroom to outdoor nature | 152 |
| 4.57 | Extent of good landscape and outdoor elements in a respondent's school | 153 |
| 4.58 | Extent to which classroom desks and seats are very comfortable for learning | 153 |
| 4.59 | Extent to which arrangement of desks and seats in the classroom encourages collaboration and teamwork | 154 |
| 4.60 | Extent to which the type of classroom desks and seats in my class provides an opportunity for social interaction | 154 |
| 4.61 | Extent to which respondents can easily connect to the internet and other internet-based portals in the classroom | 155 |

| | | |
|------|---|-----|
| 4.62 | Extent to which ICT facilities in the classroom can increase ICT skills | 155 |
| 4.63 | Extent to which the use of ICT facilities by teachers makes learning exciting and interesting | 156 |
| 4.64 | Extent to which wall decorations in the classroom inspire students | 156 |
| 4.65 | Extent to which plants and inspirational posters improve students' engagement in class | 157 |
| 4.66 | Extent to which the general colour combinations in the classroom makes students happy | 157 |
| 4.67 | Extent to which respondents like the colours of the interior walls in the classroom | 158 |
| 4.68 | Extent to which students are always motivated to come to class because of the colour of the classroom | 158 |
| 4.69 | Extent to which the provision of lockers and adequate storage spaces makes the classroom neat and orderly | 159 |
| 4.70 | Extent to which classroom is overcrowded | 159 |
| 4.71 | Extent to which the classroom size is adequate | 159 |
| 4.72 | Extent of adequate power supply (electricity) to the classroom | 160 |
| 4.73 | Extent of adequate waste bins in the classroom | 160 |
| 4.74 | Extent to which students feel safe in the classroom | 161 |
| 4.75 | Extent of the provision of safety gadgets like fire extinguishers in the classroom | 161 |
| 4.76 | Extent to which safety gadgets like first aid box is provided in the classroom | 162 |
| 4.77 | Extent to which height of a classroom is adequate | 162 |
| 4.78 | Extent to which students are happy with the shape of the classroom | 163 |
| 4.79 | Extent to which students liked coming to the classroom every day | 163 |
| 4.80 | Descriptive statistics of the influence of the physical learning environment of classrooms on students' learning outcomes | 164 |

| | | |
|------|---|-----|
| 4.81 | Factor Analysis of the influence of the physical learning environment of classrooms on students' learning outcomes | 166 |
| 4.82 | ANOVA Result for Regression of Classroom Architecture on Academic Performance | 168 |
| 4.83 | Model Summary of Regression Analysis for the Factors that Influence Classroom Architecture on Academic Performance | 169 |
| 4.84 | Coefficients of the Regression Analysis of significant factors on students' academic performance. | 169 |
| 4.85 | The ANOVA Result for Regression of Classroom Architecture on Student Engagement | 170 |
| 4.86 | Model Summary of Regression Analysis for the Factors that Influence Classroom Architecture on Student Engagement | 170 |
| 4.87 | Coefficients of the Regression Analysis of Significant Factors on Student Engagement | 171 |
| 4.88 | The ANOVA Result for Regression of Classroom Architecture on Student's Behavioural Tendencies | 171 |
| 4.89 | Model Summary of Regression Analysis for the Factors that Influence Classroom Architecture on Student's Behavioural Tendencies | 172 |
| 4.90 | Coefficients of the Regression Analysis of Significant Factors on Students' Behavioural Tendencies | 172 |
| 4.91 | Model Summary of Regression Analysis of the Influence of Socio-economic Characteristics and Internal Classroom Components on Students' Learning Outcomes | 174 |
| 4.92 | The ANOVA result of Regression Analysis of the Influence of Socio-economic Characteristics and Internal Classroom Components on Students' Learning Outcomes | 175 |
| 4.93 | Coefficients of the Regression Analysis of Significant Components on Learning Outcomes | 175 |

LIST OF PLATES

| Plates | Title of Plates | Pages |
|---------------|---|--------------|
| 1 | Some components of the classroom physical learning environment present at Lagos City Model College, Sabo-Yaba, Lagos | 91 |
| 2 | Some components of the classroom physical learning environment present at Lead-Forte Gate College, Ajah, Lagos | 91 |
| 3 | Some components of the classroom physical learning environment present at Meadow Hall College, Lekki, Lagos | 92 |
| 4 | Some components of the classroom physical learning environment present at Meadow Hall College, Lekki, Lagos | 92 |
| 5 | Some components of the classroom physical learning environment present at Avit College, Ikorodu, Lagos | 93 |
| 6 | Some components of the classroom physical learning environment present at Bellina College, Akoka, Lagos | 93 |
| 7 | Some components of the classroom physical learning environment present at Ikosi Senior High School, Ketu, Lagos | 94 |
| 8 | Some components of the classroom physical learning environment present at Jextoban Secondary School, Alapere, Lagos | 94 |
| 9 | Some components of the classroom physical learning environment present at Dansol High School, Ikeja, Lagos | 95 |
| 10 | Some components of the classroom physical learning environment present at Diary Farm Senior Secondary School, Agege, Lagos | 95 |
| 11 | Some components of the classroom physical learning environment present at Home Science Association Secondary School, Alakuko, Lagos | 96 |
| 12 | Some components of the classroom physical learning environment present at Ezekiel International College, Iju, Lagos | 96 |
| 13 | Highly stained classroom wall paint, paired desks & chairs, windows and ceiling fan | 98 |
| 14 | One of the entrance metal doors, the teaching wall and a fallen-off/detached whiteboard. | 98 |

| | | |
|-----|---|-----|
| 15 | A typical corridor leading to the classrooms. No fire safety apparatus like fire extinguisher was found in/around the classroom | 99 |
| 16 | A rear view of a typical classroom in the selected school | 99 |
| 17 | The teaching wall with worn out/torn classroom wall displays | 100 |
| 18 | The U-Shaped school building with scanty landscaping/green areas | 100 |
| 19 | The classroom lobby with intermittent wall frames. | 102 |
| 20 | A typical classroom desk and chair at Lead-Forte Gate College | 102 |
| 21 | The teaching wall with an interactive smart board, multimedia speaker, Wi-Fi router. | 103 |
| 22 | The rear classroom wall and a typical class arrangement. | 103 |
| 23 | An approach view of the teaching wall. | 104 |
| 24 | A typical room air-conditioner around the teaching wall area of the classroom | 104 |
| 25 | A view of a typical classroom at Meadow Hall College. | 105 |
| 26 | The design of the teaching wall at Meadow Hall College. | 106 |
| 27 | A standalone personalized storage locker for each student. | 106 |
| 28 | The drapes over the windows at a typical classroom at Meadow Hall College. | 107 |
| 29 | The teaching wall with additional wall decorations and teaching aids. | 107 |
| 30 | A jacket rack and a bag shelf close to the rear classroom wall. | 108 |
| 31a | A typical classroom lobby with inspiring wall decals and wall decorations | 108 |
| 31b | An outdoor aerial view of the school building | 109 |
| 32 | A typical arrangement of the classroom desks and chairs at Western College. | 110 |
| 33 | The exit door location and adjoining windows in a typical classroom at Western College | 110 |
| 34 | A typical window design in a classroom at Western College. | 111 |
| 35 | An outdoor view of the classroom lobbies across the floors of the school building | 111 |
| 36 | A typical classroom arrangement at Western College. | 112 |

| | | |
|-----|--|-----|
| 37 | Another view of a typical classroom setup at Western College. | 112 |
| 38 | A typical classroom lobby of one of the classroom blocks. | 114 |
| 39 | A view of a classroom at Ikosi Senior High School. | 114 |
| 40 | Another view of a classroom at Ikosi Senior High School. | 115 |
| 41 | A deformed ceiling fan with faulty ceiling light fittings in a typical classroom | 115 |
| 42 | The teaching wall of a classroom from a rearview at Ikosi Senior High School. | 116 |
| 43 | A defaced classroom wall by students with illicit writings on the wall. | 116 |
| 44 | A typical classroom floor finishing at Ikosi Senior High School | 117 |
| 45 | Another classroom block at Ikosi Senior High School. | 117 |
| 46 | The teaching wall with a hybrid of whiteboard and chalkboard at Avit College. | 118 |
| 47 | Another typical classroom at Avit College. | 119 |
| 48 | An entrance into a typical classroom at Avit College. | 119 |
| 49 | Part of the teaching wall and the adjacent wall at a typical classroom in Bellina College. | 120 |
| 50: | A typical rear classroom wall with wall posters and notice board | 121 |
| 51 | Another rear view of a typical classroom and a storage shelf. | 121 |
| 52 | The classroom lobby at Bellina College. | 122 |
| 53 | Another typical classroom with an interactive smart board but with no projector overhead. | 122 |
| 54 | A close view of a typical plastic desk and chair at Bellina College classrooms. | 123 |
| 55 | The teaching wall with monolithic wall paint at Jextoban Secondary School. | 124 |
| 56 | A rear view of a classroom and the layout arrangement at Jextoban College | 124 |
| 57 | Another view of the classroom setup at Jextoban | 125 |
| 58 | Students in a typical classroom with adequate artificial lighting | 125 |
| 59 | A typical classroom lobby and adjoining outdoor nature at Dairy Farm | 126 |

Senior Secondary School.

| | | |
|-----|---|-----|
| 60 | A typical classroom arrangement and the teaching wall at Dairy Farm Senior Secondary School | 127 |
| 61 | A side view of a typical classroom with highly stained walls. | 127 |
| 62 | A windowpane in a state of disrepair. | 128 |
| 63a | The teaching wall with worn out/ torn classroom wall displays and faulty light fittings | 128 |
| 63b | Faulty light fittings in the classroom | 129 |
| 63c | A view of another block of classrooms recently renovated | 129 |
| 64 | A typical classroom lobby with well-painted wall paints and guard rails along with the L-Shaped school building on four (4) floors. | 130 |
| 65 | Typical classroom space at Dansol High School. | 131 |
| 66 | Additional colourful storage lockers in each classroom. | 131 |
| 67 | Adjoining outdoor nature views and recreation corner in the school environment. | 132 |
| 68 | A water dispenser and some wall posters in a typical classroom. | 132 |
| 69 | The exterior view of the L-Shaped school building of four (4) floors | 133 |
| 70 | A typical classroom view at Ezekiel College. | 134 |
| 71 | A typical paired classroom desk and chair provision at Ezekiel College | 134 |
| 72 | A classroom without a door. | 135 |
| 73 | The window design in some of the classrooms were glass louvres | 135 |
| 74 | The outdoor exterior view of the U-Shaped school building on three (3) floors | 136 |
| 75 | A typical classroom view with adequate daylighting into the classroom | 137 |
| 76 | The teaching wall with some peeling paints | 137 |
| 77 | The rear classroom blank wall. | 138 |

LIST OF ABBREVIATIONS

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| AFED | Association for Formidable Educational Development |
| APEN | Association of Private Educators in Nigeria |
| CBO | Community Based Organisations |
| CELT | Center for the Enhancement of Learning & Teaching |
| CHPS | Collaborative for High Performance Schools |
| DEEPEN | Developing Effective Private Education Nigeria |
| DFID | Department For International Development |
| ESSPIN | Education Sector Support Programme in Nigeria |
| ICT | Information and Communications Technologies |
| IOM | International Organisation for Migration |
| LREFP | Long Range Educational Facilities Plan |
| MI | Multiple Intelligence |
| NAPPS | National Association of Proprietors of Private Schools |
| NBS | National Bureau of Statistics |
| NFER | National Foundation for Educational Research |
| NGO | Non-Governmental Organisation |
| SDG | Sustainable Development Goals |
| S-O-R | Stimulus-Organism-Response |
| SPSS | Statistical Package for Social Scientists |
| SSCE | Senior School Certificate Examination |
| SUBEB | State Universal Basic Education Board |
| UBEC | Universal Basic Education Commission |
| UCD | User-Centered Design |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |

ABSTRACT

Nigeria's population currently has a massive youth bulge which is meant to be a plus if young people are exposed to learn and acquire knowledge, skills and attitude required to impact on the three main domains of development: affective, behavioural and cognitive development commonly referred to as the ABC of learning. Unfortunately, lack of access to quality education is one of the challenges facing young people. Whilst most studies focused on a singular aspect of students' learning outcomes mostly academic achievement; there are limited studies to report the impact of the classroom architecture on all the three domains of learning outcomes: affective (students' engagement), behavioural (conducts and actions) and cognitive (academic achievement). Consequently, there have been uncertainties about the influence of some socio-economic factors such as gender, parent's economic status, school location amongst others on learner's developmental outcomes. As a result, this study aimed to investigate the impact of classroom architecture on students' learning outcomes in selected secondary schools in Lagos State with a view to suggesting ways of using architectural design strategies to improve students' learning outcomes in the study area. A cross-sectional survey using the mixed method approach was adopted, comprising both quantitative (deductive) and qualitative (inductive) techniques. The study population comprised of all approved public and private secondary schools in Lagos State with a focus on senior secondary schools. The multi-stage sampling technique was adopted using a hybrid of three techniques: purposive sampling, quota and random sampling. A total of 488 copies of questionnaire were retrieved from nine private schools and three public schools as well as non-participatory direct observation of the components of the classroom architecture of each sampled school. The quantitative data were analysed using descriptive statistics (univariate analysis), factor analysis and categorical regression while the qualitative data were reported in tables and photographic records. Findings from this study revealed eleven (11) factors of the classroom architecture that had a significant impact on students' learning outcomes across the three domains of learning outcomes. Quality disparities were observed in different classroom environments. Maintenance was found to be a barrier to the perfect working conditions for the available physical components of the classroom architecture. The furniture (desks, chairs & tables) was the only internal component of the classroom architecture that had a significant influence on students' learning outcomes. Other significant variables that influenced students' learning outcomes were students' learning styles, type of school (private or public), and geographic location of the school. This study contributes to advancing goal 4 of the SDG. It recommends that stakeholders in the educational sector should pay attention to the adequacy and quality of classroom components using the eleven (11) factors of the classroom architecture that had a significant impact on students' learning outcomes. Architects and design professionals should therefore design the classroom environment to be responsive to meeting students' learning styles, enhance active learning and incorporate blended learning.

Key Words: Classroom, classroom architecture, learning environment, learning outcomes, students