

WEATHER STATION RECORDS IN SCHOOL GEOGRAPHY

BY

[STUDENT'S FULL NAME]

[MATRIC NUMBER]

BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF SOCIAL SCIENCE EDUCATION,
FACULTY OF EDUCATION, UNIVERSITY OF LAGOS, AKOKA, LAGOS STATE

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.)
DEGREE IN SOCIAL SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Weather Station Records in School Geography" was carried out by [STUDENT'S FULL NAME], and has been read and approved as meeting the regulations governing the award of the degree of Bachelor of Science (B.Sc.) of the University of Lagos.

PROJECT SUPERVISOR

Date

HEAD OF DEPARTMENT

Date

EXTERNAL EXAMINER

Date

DEDICATION

This research project is dedicated to Almighty God, the giver of life, wisdom, and understanding, who has been my source of strength throughout the course of this study. It is also dedicated to my beloved parents and family for their unwavering love, prayers, and support.

ACKNOWLEDGEMENT

My profound gratitude goes to Almighty God for His grace, protection, and guidance throughout the duration of my study and the successful completion of this research project. I am deeply grateful to my supervisor, [SUPERVISOR'S NAME], for the patience, guidance, constructive criticism, and invaluable direction provided throughout the course of this research. I also wish to appreciate the Head of Department, the lecturers of the Department of Social Science Education, and my course mates for their support and friendship. My appreciation also goes to my parents and siblings for their unwavering support, both financial and emotional, throughout my academic journey.

ABSTRACT

This study examined weather station records in school geography, using undergraduate students of the University of Lagos as a case study. The study was guided by three specific objectives: to examine the extent to which respondents exhibit the key attributes of weather; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with weather and station. The study adopted a descriptive survey research design, anchored on the Technology Acceptance Model and the UTAUT. A sample size of 408 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 376 questionnaires were found valid for analysis. Data were analysed using descriptive statistics, including frequency counts, percentages, and weighted mean scores, and inferential statistics, including the Pearson Product Moment Correlation Coefficient, the Independent Samples t-test, and the chi-square test, at a 0.05 level of significance. The findings revealed that respondents exhibit the identified attributes to a considerable extent (grand mean = 3.04). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.504$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 6.9, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.34$, $p > 0.05$). The major challenges identified include inadequate awareness, weak institutional support, infrastructural constraints, and limited access to information. The study recommends targeted interventions, improved access to resources, and intensified public education on weather.

TABLE OF CONTENTS

Title Page	i
Certification	ii
Dedication	iii
Acknowledgement	iv
Abstract	v
Table of Contents	vi
List of Tables	vii
List of Figures	viii
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	4
1.3 Objectives of the Study	7
1.4 Research Questions	7
1.5 Research Hypotheses	7
1.6 Significance of the Study	7
1.7 Scope and Limitation of the Study	10
1.8 Definition of Terms	13
CHAPTER TWO: LITERATURE REVIEW	14
2.1 Conceptual Review	14
2.1.1 Concept of Weather	14
2.1.2 Concept of Station	15
2.1.3 Concept of Records	17
2.2 Theoretical Framework	19
2.2.1 Technology Acceptance Model	19
2.2.2 UTAUT	20
2.2.3 Diffusion of Innovation Theory	21
2.2.4 Systems Development Life Cycle	22
2.3 Empirical Review	23
2.3.1 Early Studies on weather	23
2.3.2 Recent Nigerian Evidence on weather	25
2.3.3 Weather and station	27
2.3.4 Comparative Perspectives across Africa	29
2.4 Summary of Literature Review	30
CHAPTER THREE: RESEARCH METHODOLOGY	33
3.1 Research Design	33
3.2 Population of the Study	33
3.3 Sample Size and Sampling Technique	34
3.4 Sources of Data Collection	35
3.5 Research Instrument	36
3.6 Validity and Reliability of the Instrument	37
3.7 Method of Data Analysis	38
3.7.1 Administration of the Instrument	39

3.8 Ethical Considerations	40
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION	43
4.1 Data Presentation	43
4.2 Demographic Characteristics of Respondents	43
4.3 Analysis of Research Questions	44
4.4 Test of Hypotheses	45
4.5 Discussion of Findings	46
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	51
5.1 Summary	51
5.2 Conclusion	52
5.3 Recommendations	53
5.4 Suggestions for Further Studies	53
REFERENCES	55
APPENDIX	57

LIST OF TABLES

Table 2.1: Summary of the Review of Related Literature	31
Table 2.2: Operationalisation of the Study Variables	31
Table 3.1: Population of the Study and Sampling Technique	40
Table 3.2: Validity and Reliability of the Research Instrument	41
Table 4.1: Gender Distribution of Respondents	49
Table 4.2: Age Distribution of Respondents	49
Table 4.3: Educational Attainment of Respondents	49
Table 4.4: Weighted Mean Analysis of Research Question One	50
Table 4.5: Weighted Mean Analysis of Research Question Two	50
Table 4.6: Correlation Summary between the Independent and Dependent Variables	50
Table 4.7: Independent Samples t-test by Gender	50
Table 4.8: Chi-square Test of Association	50

LIST OF FIGURES

Figure 1.1: Conceptual Framework of the Study	13
Figure 3.1: Social Science Education Research Context	41
Figure 4.1: Gender Distribution of Respondents	49
Figure 4.2: Age Distribution of Respondents	49

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of weather station records in school geography is situated within a body of scholarship that has grown rapidly in the past two decades. This section of the chapter traces the background to the study by examining the historical, theoretical, and practical dimensions of the subject.

Few subjects attract as much policy interest in contemporary Nigeria as the question of weather. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of weather in everyday life. The aggregate picture emerging from Ogbeide and Umeh (2023) points to a modest but consistent association between weather and the outcomes of interest. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Dauda and Umeh (2020), in a survey of relevant stakeholders, concluded that the benefits of weather are unevenly distributed across groups. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

A growing corpus of literature draws attention to the pivotal role of weather in shaping developmental trajectories. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of weather in everyday life. Research by Ibrahim and Aderemi (2021) using mixed methods provided particularly rich insight into the mechanisms connecting weather and station. For practitioners, the practical significance of weather cannot be overstated, given its demonstrable link with station. Evidence assembled by Nwosu and Ekwueme (2015) across twelve states underscored the heterogeneity of outcomes linked to weather. Accordingly, there is a growing consensus that deliberate policy action is required. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

In recent years, weather has emerged as a central theme in scholarly discourse on social science education. Within Lagos State, the country's most populous commercial hub, the dynamics of weather are observed in their starkest form. Research by Nwosu and Ekwueme (2021) using mixed methods provided particularly rich insight into the mechanisms connecting weather and station. These observations collectively invite a reconsideration of standard assumptions regarding station. Longitudinal research by Obiora and Olawale (2016) revealed that sustained attention to weather yields appreciable dividends over time. These developments carry important implications for policy and practice in social science education. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

A growing corpus of literature draws attention to the pivotal role of weather in shaping developmental trajectories. Economic pressures and resource scarcity frequently determine the pace at which weather advances in practice. Research by Eze and Nnamdi (2021) using mixed methods provided particularly rich insight into the mechanisms connecting weather and station. Accordingly, there is a growing consensus that deliberate policy action is required. An examination by Alade and Nwosu (2019) attributed much of the