

TEACHING OF WEATHER INSTRUMENTS WITH LOCAL MATERIALS

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Teaching of Weather Instruments with Local Materials" 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.

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ABSTRACT

This study examined teaching of weather instruments with local materials, 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 teaching; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with teaching and weather. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 400 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 371 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 = 3.12). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.575$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 6.36, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.09$, $p > 0.05$). 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 teaching.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of teaching of weather instruments with local materials 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.

teaching continues to command considerable attention among researchers, policymakers, and practitioners in science education. Globalisation and technological change have intensified both the opportunities and the challenges associated with teaching. Field evidence gathered by Olawale and Bello (2016) suggested that stakeholder engagement materially improves the results achieved in matters of teaching. For practitioners, the practical significance of teaching cannot be overstated, given its demonstrable link with weather. Eze and Kalu (2020), in a survey of relevant stakeholders, concluded that the benefits of teaching are unevenly distributed across groups. Such findings reinforce the argument that teaching deserves a place of priority on the development agenda. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

Scholars have long recognised teaching as a critical determinant of outcomes in science education. Within Lagos State, the country's most populous commercial hub, the dynamics of teaching are observed in their starkest form. A notable study by Chukwu and Adigun (2017) argued that the impact of teaching is substantially mediated by the quality of institutions. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Evidence assembled by Dauda and Aderemi (2015) across twelve states underscored the heterogeneity of outcomes linked to teaching. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

Contemporary scholarship increasingly frames teaching as inseparable from the broader question of weather. Economic pressures and resource scarcity frequently determine the pace at which teaching advances in practice. The aggregate picture emerging from Dauda and Aderemi (2023) points to a modest but consistent association between teaching and the outcomes of interest. For practitioners, the practical significance of teaching cannot be overstated, given its demonstrable link with weather. Findings reported by Alade and Dauda (2018) observed that respondents with greater exposure to teaching recorded markedly different results. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

Few subjects attract as much policy interest in contemporary Nigeria as the question of teaching. Economic pressures and resource scarcity frequently determine the pace at which teaching advances in practice. The aggregate picture emerging from Alade and Adigun (2023) points to a modest but consistent association