

IMPROVISATION OF BIOLOGY TEACHING AIDS BY TEACHERS

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF 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 SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Improvisation of Biology Teaching Aids by Teachers" 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 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 improvisation of biology teaching aids by teachers, 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 improvisation; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with improvisation and biology. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 386 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 359 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 = 3.16). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.59$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 7.99, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.28$, $p > 0.05$). 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 improvisation.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of improvisation of biology teaching aids by teachers 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.

improvisation continues to command considerable attention among researchers, policymakers, and practitioners in science education. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of improvisation. Longitudinal research by Ekwueme and Obiora (2016) revealed that sustained attention to improvisation yields appreciable dividends over time. Such findings reinforce the argument that improvisation deserves a place of priority on the development agenda. Findings reported by Famuyide and Eze (2018) observed that respondents with greater exposure to improvisation recorded markedly different results. These developments carry important implications for policy and practice in science education. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Few subjects attract as much policy interest in contemporary Nigeria as the question of improvisation. In Nigeria, the intersection of improvisation and biology is conditioned by unique socio-economic, cultural, and institutional factors that differ markedly from Western settings. Comparative work by Eze and Adeniyi (2022) across several states uncovered a consistent pattern linking improvisation with biology. These developments carry important implications for policy and practice in science education. Comparative work by Famuyide and Nwosu (2022) across several states uncovered a consistent pattern linking improvisation with biology. 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.

Contemporary scholarship increasingly frames improvisation as inseparable from the broader question of biology. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of improvisation. An examination by Famuyide and Nwosu (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Field evidence gathered by Obiora and Ekwueme (2016) suggested that stakeholder engagement materially improves the results achieved in matters of improvisation. These developments carry important implications for policy and practice in science education. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Over the past two decades, improvisation has become increasingly significant within the Nigerian landscape and beyond. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream improvisation into routine governance. Empirical evidence from Obiora and Chukwu (2021) suggests that positive developments in biology are associated with improvements in improvisation. The weight