

# **IMPROVISATION OF TEACHING AIDS FOR PLACE VALUE**

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

## CERTIFICATION

This is to certify that this research project titled "Improvisation of Teaching Aids for Place Value" 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.

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PROJECT SUPERVISOR

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Date

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Date

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EXTERNAL EXAMINER

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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 teaching aids for place value, 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 teaching. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 387 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 365 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 ( $r = 0.538$ ,  $p < 0.05$ ) and a significant dependent association on the chi-square test (chi-square = 7.39,  $p < 0.05$ ). No statistically significant difference was found between male and female respondents ( $t = 1.3$ ,  $p > 0.05$ ). 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 teaching aids for place value 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 improvisation. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which improvisation unfolds. The aggregate picture emerging from Salami and Adekunle (2023) points to a modest but consistent association between improvisation and the outcomes of interest. For practitioners, the practical significance of improvisation cannot be overstated, given its demonstrable link with teaching. Studies conducted within the West African subregion by Eze and Adekunle (2018) reached conclusions broadly consistent with the Nigerian evidence. These observations collectively invite a reconsideration of standard assumptions regarding teaching. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

In both global and African literatures, improvisation is now regarded as a key index of institutional performance. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of improvisation in everyday life. Evidence assembled by Adigun and Kalu (2015) across twelve states underscored the heterogeneity of outcomes linked to improvisation. Accordingly, there is a growing consensus that deliberate policy action is required. An examination by Kalu and Umeh (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. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

improvisation continues to command considerable attention among researchers, policymakers, and practitioners in science education. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream improvisation into routine governance. Research by Kalu and Umeh (2021) using mixed methods provided particularly rich insight into the mechanisms connecting improvisation and teaching. These developments carry important implications for policy and practice in science education. The aggregate picture emerging from Bello and Ekwueme (2023) points to a modest but consistent association between improvisation and the outcomes of interest. Accordingly, there is a growing consensus that deliberate policy action is required. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Debates on national transformation repeatedly return to the role of improvisation and its attendant dynamics. National policies and programmes have sought, with varying degrees of success, to respond to the realities of improvisation and teaching. Okonkwo and Nnamdi (2020), in a survey of relevant stakeholders, concluded that the benefits of improvisation are unevenly distributed across groups. Sustained engagement with the