

# **AVAILABILITY OF APPARATUS FOR MECHANICS EXPERIMENTS**

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

## CERTIFICATION

This is to certify that this research project titled "Availability of Apparatus for Mechanics Experiments" 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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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 availability of apparatus for mechanics experiments, 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 availability; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with availability and apparatus. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 409 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 = 3.06). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ( $r = 0.492$ ,  $p < 0.05$ ) and a significant dependent association on the chi-square test (chi-square = 7.56,  $p < 0.05$ ). No statistically significant difference was found between male and female respondents ( $t = 1.22$ ,  $p > 0.05$ ). 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 availability.

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## CHAPTER ONE: INTRODUCTION

### 1.1 Background to the Study

The study of availability of apparatus for mechanics experiments 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.

Debates on national transformation repeatedly return to the role of availability and its attendant dynamics. The socio-cultural diversity of Nigeria implies that responses to availability must be differentiated rather than uniform. Studies by Aderemi and Chukwu (2019) largely support the view that availability exerts a measurable influence on outcomes of interest. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. The work of Musa and Osinachi (2023) extended earlier analyses by demonstrating that apparatus reinforces the effects of availability. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

Few subjects attract as much policy interest in contemporary Nigeria as the question of availability. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of availability. Research by Salami and Osinachi (2021) using mixed methods provided particularly rich insight into the mechanisms connecting availability and apparatus. Accordingly, there is a growing consensus that deliberate policy action is required. An examination by Oyelaran and Musa (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

A growing corpus of literature draws attention to the pivotal role of availability in shaping developmental trajectories. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream availability into routine governance. Empirical evidence from Oyelaran and Musa (2021) suggests that positive developments in apparatus are associated with improvements in availability. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Empirical evidence from Nwosu and Osinachi (2021) suggests that positive developments in apparatus are associated with improvements in availability. These observations collectively invite a reconsideration of standard assumptions regarding apparatus. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

A growing corpus of literature draws attention to the pivotal role of availability in shaping developmental trajectories. Nigeria's federal structure and its diverse cultural geography ensure that the experience of availability varies considerably from one region to another. Comparative work by Adeniyi and Bamgbose (2022) across several states uncovered a consistent pattern linking availability with apparatus. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Findings reported by