

SAFETY HABITS IN JUNIOR SCIENCE LABORATORIES

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Safety Habits in Junior Science Laboratories" 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 safety habits in junior science laboratories, 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 safety; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with safety and habits. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 390 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 361 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 ($r = 0.554$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 5.85, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.04$, $p > 0.05$). 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 safety.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of safety habits in junior science laboratories 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 safety. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of safety in everyday life. Comparative work by Bamgbose and Dauda (2022) across several states uncovered a consistent pattern linking safety with habits. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. A notable study by Musa and Obiora (2017) argued that the impact of safety is substantially mediated by the quality of institutions. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

safety occupies a prominent position in contemporary debates about habits and national development. Auxiliary variables, including education, income, and location, further condition how safety is experienced across communities. Findings reported by Olawale and Osinachi (2018) observed that respondents with greater exposure to safety recorded markedly different results. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Research by Kalu and Osinachi (2021) using mixed methods provided particularly rich insight into the mechanisms connecting safety and habits. These observations collectively invite a reconsideration of standard assumptions regarding habits. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

The phenomenon of safety, while not new, has acquired fresh analytical urgency in Nigeria. Auxiliary variables, including education, income, and location, further condition how safety is experienced across communities. Longitudinal research by Kalu and Osinachi (2016) revealed that sustained attention to safety yields appreciable dividends over time. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. The work of Kalu and Bakare (2023) extended earlier analyses by demonstrating that habits reinforces the effects of safety. For practitioners, the practical significance of safety cannot be overstated, given its demonstrable link with habits. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

The salience of safety in national discourse has grown steadily, driven by changing social conditions and technological penetration. Globalisation and technological change have intensified both the opportunities and the challenges associated with safety. Findings reported by Bello and Kalu (2018) observed that respondents with greater exposure to safety recorded markedly different results. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. Evidence assembled by Ekwueme and Kalu (2015) across twelve states underscored the heterogeneity of outcomes linked to safety.