

STUDENTS' FEAR OF PHYSICS CALCULATIONS

BY

[STUDENT'S FULL NAME]

[MATRIC NUMBER]

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Students' Fear of Physics Calculations" 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 students' fear of physics calculations, 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 students; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with students and fear. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 397 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 = 3.18). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.597$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 8.63, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.2$, $p > 0.05$). 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 students.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of students' fear of physics calculations 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.

Over the past two decades, students has become increasingly significant within the Nigerian landscape and beyond. Globalisation and technological change have intensified both the opportunities and the challenges associated with students. Studies by Musa and Salami (2019) largely support the view that students exerts a measurable influence on outcomes of interest. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Evidence assembled by Ibrahim and Oyelaran (2015) across twelve states underscored the heterogeneity of outcomes linked to students. For practitioners, the practical significance of students cannot be overstated, given its demonstrable link with fear. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

Contemporary scholarship increasingly frames students as inseparable from the broader question of fear. The socio-cultural diversity of Nigeria implies that responses to students must be differentiated rather than uniform. The work of Oyelaran and Bamgbose (2023) extended earlier analyses by demonstrating that fear reinforces the effects of students. Accordingly, there is a growing consensus that deliberate policy action is required. Studies conducted within the West African subregion by Bello and Adigun (2018) reached conclusions broadly consistent with the Nigerian evidence. For practitioners, the practical significance of students cannot be overstated, given its demonstrable link with fear. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

Scholars have long recognised students as a critical determinant of outcomes in science education. National policies and programmes have sought, with varying degrees of success, to respond to the realities of students and fear. Bello and Adigun (2020), in a survey of relevant stakeholders, concluded that the benefits of students are unevenly distributed across groups. These observations collectively invite a reconsideration of standard assumptions regarding fear. Longitudinal research by Oyelaran and Ogbeide (2016) revealed that sustained attention to students yields appreciable dividends over time. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

students, when examined in relation to fear, reveals complex and often paradoxical dynamics. Within Lagos State, the country's most populous commercial hub, the dynamics of students are observed in their starkest form. Field evidence gathered by Nwosu and Obiora (2016) suggested that stakeholder engagement materially improves the results achieved in matters of students. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Studies conducted within the West African subregion by Nwosu and Obiora (2018) reached conclusions broadly consistent with the Nigerian evidence.