

DRAINAGE CLEARING EXERCISES AND FLOOD PREVENTION

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Drainage Clearing Exercises and Flood Prevention" 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 drainage clearing exercises and flood prevention, 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 drainage; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with drainage and clearing. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 384 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 352 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 = 2.99). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.532$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 5.36, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.35$, $p > 0.05$). 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 drainage.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of drainage clearing exercises and flood prevention 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.

The salience of drainage in national discourse has grown steadily, driven by changing social conditions and technological penetration. Within Lagos State, the country's most populous commercial hub, the dynamics of drainage are observed in their starkest form. Studies conducted within the West African subregion by Adeniyi and Alade (2018) reached conclusions broadly consistent with the Nigerian evidence. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. The work of Salami and Bello (2023) extended earlier analyses by demonstrating that clearing reinforces the effects of drainage. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

Scholars have long recognised drainage as a critical determinant of outcomes in science education. Evidence from national agencies indicates that drainage has grown considerably in recent times, underscoring the need for systematic inquiry. Findings reported by Olawale and Musa (2018) observed that respondents with greater exposure to drainage recorded markedly different results. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Kalu and Obiora (2020), in a survey of relevant stakeholders, concluded that the benefits of drainage are unevenly distributed across groups. Such findings reinforce the argument that drainage deserves a place of priority on the development agenda. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Scholars have long recognised drainage as a critical determinant of outcomes in science education. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of drainage. Research by Kalu and Obiora (2021) using mixed methods provided particularly rich insight into the mechanisms connecting drainage and clearing. Such findings reinforce the argument that drainage deserves a place of priority on the development agenda. Findings reported by Bamgbose and Salami (2018) observed that respondents with greater exposure to drainage recorded markedly different results. 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.

Over the past two decades, drainage has become increasingly significant within the Nigerian landscape and beyond. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of drainage. The aggregate picture emerging from Adeniyi and Adigun (2023) points to a modest but consistent association between drainage and the outcomes of interest. Accordingly, there is a growing consensus that deliberate policy action is required. Findings reported by Ekwueme and Ogbeide (2018) observed that respondents with greater exposure to drainage recorded markedly different results. The