

PLASTIC RECYCLING PROJECTS IN SECONDARY SCHOOLS

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF SCIENCE EDUCATION, FACULTY
OF EDUCATION, UNIVERSITY OF LAGOS, AKOKA, LAGOS STATE

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.)
DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Plastic Recycling Projects in Secondary Schools" 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.

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 plastic recycling projects in secondary schools, 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 plastic; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with plastic and recycling. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 420 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 384 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 = 3.17). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.561$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 8.83, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.1$, $p > 0.05$). 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 plastic.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of plastic recycling projects in secondary schools 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.

In recent years, plastic has emerged as a central theme in scholarly discourse on science education. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of plastic. Field evidence gathered by Osinachi and Alade (2016) suggested that stakeholder engagement materially improves the results achieved in matters of plastic. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. An examination by Aderemi and Famuyide (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

plastic, when examined in relation to recycling, reveals complex and often paradoxical dynamics. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream plastic into routine governance. A notable study by Nwosu and Alade (2017) argued that the impact of plastic is substantially mediated by the quality of institutions. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Findings reported by Bello and Chukwu (2018) observed that respondents with greater exposure to plastic recorded markedly different results. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

plastic, when examined in relation to recycling, reveals complex and often paradoxical dynamics. The socio-cultural diversity of Nigeria implies that responses to plastic must be differentiated rather than uniform. Field evidence gathered by Bello and Chukwu (2016) suggested that stakeholder engagement materially improves the results achieved in matters of plastic. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Longitudinal research by Bello and Olawale (2016) revealed that sustained attention to plastic yields appreciable dividends over time. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

Contemporary scholarship increasingly frames plastic as inseparable from the broader question of recycling. Within Lagos State, the country's most populous commercial hub, the dynamics of plastic are observed in their starkest form. Research by Bello and Ekwueme (2021) using mixed methods provided particularly rich insight into the mechanisms connecting plastic and recycling. These developments carry important implications for policy and practice in science education. The aggregate picture emerging from Musa and Adebayo (2023)