

GENDER STEREOTYPES AND GIRLS' MATHEMATICS CHOICES

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Gender Stereotypes and Girls' Mathematics Choices" 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 gender stereotypes and girls' mathematics choices, 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 gender; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with gender and stereotypes. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 393 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 372 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 ($r = 0.592$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 5.65, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.32$, $p > 0.05$). 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 gender.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of gender stereotypes and girls' mathematics choices 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.

gender, when examined in relation to stereotypes, reveals complex and often paradoxical dynamics. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of gender. Studies conducted within the West African subregion by Dauda and Eze (2018) reached conclusions broadly consistent with the Nigerian evidence. For practitioners, the practical significance of gender cannot be overstated, given its demonstrable link with stereotypes. Research by Ibrahim and Dauda (2021) using mixed methods provided particularly rich insight into the mechanisms connecting gender and stereotypes. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Scholars have long recognised gender as a critical determinant of outcomes in science education. In Nigeria, the intersection of gender and stereotypes is conditioned by unique socio-economic, cultural, and institutional factors that differ markedly from Western settings. A notable study by Olawale and Bakare (2017) argued that the impact of gender is substantially mediated by the quality of institutions. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Studies conducted within the West African subregion by Salami and Obiora (2018) reached conclusions broadly consistent with the Nigerian evidence. Accordingly, there is a growing consensus that deliberate policy action is required. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

gender continues to command considerable attention among researchers, policymakers, and practitioners in science education. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which gender unfolds. Research by Salami and Obiora (2021) using mixed methods provided particularly rich insight into the mechanisms connecting gender and stereotypes. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. Kalu and Bakare (2020), in a survey of relevant stakeholders, concluded that the benefits of gender are unevenly distributed across groups. These observations collectively invite a reconsideration of standard assumptions regarding stereotypes. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

Scholars have long recognised gender as a critical determinant of outcomes in science education. Nigeria's federal structure and its diverse cultural geography ensure that the experience of gender varies considerably from one region to another. Comparative work by Musa and Bakare (2022) across several states uncovered a consistent pattern linking gender with stereotypes. For practitioners, the practical significance of gender