

GENDER DIFFERENCES IN CHEMISTRY PRACTICAL SKILLS

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Gender Differences in Chemistry Practical Skills" 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 differences in chemistry practical skills, 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 differences. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 385 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 358 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 = 2.96). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.569$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 7.3, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.29$, $p > 0.05$). 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 differences in chemistry practical skills 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.

A growing corpus of literature draws attention to the pivotal role of gender in shaping developmental trajectories. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of gender in everyday life. Studies by Nwosu and Eze (2019) largely support the view that gender exerts a measurable influence on outcomes of interest. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Findings reported by Chukwu and Ogunlana (2018) observed that respondents with greater exposure to gender recorded markedly different results. These observations collectively invite a reconsideration of standard assumptions regarding differences. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Debates on national transformation repeatedly return to the role of gender and its attendant dynamics. Nigeria's federal structure and its diverse cultural geography ensure that the experience of gender varies considerably from one region to another. Field evidence gathered by Bello and Musa (2016) suggested that stakeholder engagement materially improves the results achieved in matters of gender. Such findings reinforce the argument that gender deserves a place of priority on the development agenda. Field evidence gathered by Salami and Ogbeide (2016) suggested that stakeholder engagement materially improves the results achieved in matters of gender. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

The phenomenon of gender, while not new, has acquired fresh analytical urgency in Nigeria. Within Lagos State, the country's most populous commercial hub, the dynamics of gender are observed in their starkest form. An examination by Salami and Ogbeide (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. For practitioners, the practical significance of gender cannot be overstated, given its demonstrable link with differences. The work of Alade and Osinachi (2023) extended earlier analyses by demonstrating that differences reinforces the effects of gender. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

The salience of gender in national discourse has grown steadily, driven by changing social conditions and technological penetration. Auxiliary variables, including education, income, and location, further condition how gender is experienced across communities. Salami and Adigun (2020), in a survey of relevant stakeholders, concluded that the benefits of gender are unevenly distributed across groups. Such findings reinforce the argument that gender deserves a place of priority on the development agenda. Ogbeide and