

PEER LEARNING IN MIXED-ABILITY SCIENCE CLASSES

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 "Peer Learning in Mixed-Ability Science Classes" 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 peer learning in mixed-ability science classes, 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 peer; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with peer and learning. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 383 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 353 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 = 3.15). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.593$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 9.01, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.21$, $p > 0.05$). 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 peer.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of peer learning in mixed-ability science classes 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.

Contemporary scholarship increasingly frames peer as inseparable from the broader question of learning. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of peer. A notable study by Chukwu and Adigun (2017) argued that the impact of peer is substantially mediated by the quality of institutions. Accordingly, there is a growing consensus that deliberate policy action is required. The aggregate picture emerging from Aderemi and Olawale (2023) points to a modest but consistent association between peer and the outcomes of interest. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

peer, when examined in relation to learning, reveals complex and often paradoxical dynamics. The socio-cultural diversity of Nigeria implies that responses to peer must be differentiated rather than uniform. The aggregate picture emerging from Chukwu and Umeh (2023) points to a modest but consistent association between peer and the outcomes of interest. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Musa and Oyelaran (2020), in a survey of relevant stakeholders, concluded that the benefits of peer are unevenly distributed across groups. These observations collectively invite a reconsideration of standard assumptions regarding learning. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

A growing corpus of literature draws attention to the pivotal role of peer in shaping developmental trajectories. Within Lagos State, the country's most populous commercial hub, the dynamics of peer are observed in their starkest form. Comparative work by Musa and Oyelaran (2022) across several states uncovered a consistent pattern linking peer with learning. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Longitudinal research by Alade and Eze (2016) revealed that sustained attention to peer yields appreciable dividends over time. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

The salience of peer in national discourse has grown steadily, driven by changing social conditions and technological penetration. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of peer in everyday life. Comparative work by Adigun and Nwosu (2022) across several states uncovered a consistent pattern linking peer with learning. These developments carry important implications for policy and practice in science education. Research by Ogunlana and Bamgbose (2021) using mixed methods provided particularly rich insight into the mechanisms connecting peer and learning. For