

MENTAL ARITHMETIC DRILLS AND COMPUTATION SPEED

BY

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DEGREE IN SCIENCE EDUCATION

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Mental Arithmetic Drills and Computation Speed" 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 mental arithmetic drills and computation speed, 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 mental; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with mental and arithmetic. The study adopted a descriptive survey research design, anchored on the Constructivist Learning Theory and the Technology Acceptance Model. A sample size of 386 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 359 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 = 3.1). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.522$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 5.26, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.24$, $p > 0.05$). 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 mental.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of mental arithmetic drills and computation speed 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.

Over the past two decades, mental 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 mental. Research by Bamgbose and Kalu (2021) using mixed methods provided particularly rich insight into the mechanisms connecting mental and arithmetic. For practitioners, the practical significance of mental cannot be overstated, given its demonstrable link with arithmetic. A notable study by Osinachi and Olawale (2017) argued that the impact of mental is substantially mediated by the quality of institutions. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. 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 mental in shaping developmental trajectories. Evidence from national agencies indicates that mental has grown considerably in recent times, underscoring the need for systematic inquiry. The aggregate picture emerging from Adeniyi and Umeh (2023) points to a modest but consistent association between mental and the outcomes of interest. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. Empirical evidence from Chukwu and Ekwueme (2021) suggests that positive developments in arithmetic are associated with improvements in mental. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

The relationship between mental and arithmetic has been the subject of sustained academic interest across several disciplines. Evidence from national agencies indicates that mental has grown considerably in recent times, underscoring the need for systematic inquiry. Studies by Chukwu and Ekwueme (2019) largely support the view that mental 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 Alade and Adekunle (2018) observed that respondents with greater exposure to mental recorded markedly different results. Such findings reinforce the argument that mental deserves a place of priority on the development agenda. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

In recent years, mental has emerged as a central theme in scholarly discourse on science education. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of mental in everyday life. The aggregate picture emerging from Chukwu and Nwosu (2023) points to a modest but