

Mastering Multiplication Tables: Unlocking Academic Excellence in Speed and Accuracy

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Abstract : Mastery of multiplication tables is a critical foundation for mathematical proficiency, influencing both academic speed and accuracy. This study examines the impact of multiplication table mastery on academic performance, drawing on data from the 2024 National Multiplication Table Challenge (NMTC) held in Ebonyi State, Nigeria. The competition involved 500 pupils and evaluated their speed and accuracy in solving multiplication-related problems. Notably, the top 12 participants exhibited exceptional performance, demonstrating a strong correlation between mastery of multiplication tables and enhanced academic capabilities. This paper delves into the factors contributing to multiplication table mastery, including teaching methodologies, cognitive development, and access to resources, while also identifying educational gaps that hinder foundational mathematics learning. The analysis underscores the need for targeted interventions such as innovative instructional strategies, early exposure to multiplication concepts, and structured assessment programs to address these challenges. The findings reinforce the pivotal role of multiplication table mastery in fostering academic excellence and provide actionable recommendations for educators, policymakers, and stakeholders in mathematics education. By prioritizing foundational skills, this study advocates for a global emphasis on improving mathematics education to support students' academic success.

Keywords : academic performance, academic speed and accuracy, foundational mathematics, mathematical proficiency, multiplication table mastery, teaching methodologies

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