

**WORKING MEMORY AND MATHEMATICS PERFORMANCE OF  
STEM SENIOR HIGH SCHOOL STUDENTS**

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## **ABSTRACT**

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Working memory played a pivotal role in students' academic progress and achievement, particularly in the realm of mathematics. This descriptive-correlational study aimed to investigate the potential impact of students' working memory on their performance in STEM-related subjects, specifically focusing on mathematics, within the context of Matanao National High School. Employing a complete enumeration sampling method, the study gathered data from 167 respondents comprising grade 11 and 12 STEM senior high school students during the academic year 2023-2024. These students willingly participated in this study

The findings unveiled a nuanced picture of students' working memory capacities. While the analysis indicated a moderate level of verbal working memory among the participants, it showcased a notably higher proficiency in visuospatial working memory. Moreover, delving into the

relationship between students' working memory and their performance in mathematics, the study uncovered a significant correlation between working memory and mathematics performance of STEM senior high school students of Matanao National High School.

These results underscored the critical role of working memory in shaping students' academic achievements, particularly in mathematics. By emphasizing the importance of nurturing and enhancing students' working memory abilities, educators potentially fostered improved performance and learning outcomes in mathematics and related STEM fields.

**Keywords:** *Working Memory, Verbal Working Memory, Visuospatial Working Memory, and mathematics performance.*