# LEVEL OF PERCEPTION TOWARDS THE NUMBER OF HOURS SPENT IN STUDYING MATHEMATICS AND THE ACADEMIC PERFORMANCE OF SELECTED GRADE 10 STUDENTS OF RUFINO ASI NATIONAL HIGH SCHOOL

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**ABSTRACT :**

This study investigates the level of perception regarding the number of hours spent studying mathematics and its correlation to academic performance among selected Grade 10 students of Rufino Asi National High School. Using a descriptive-correlational method, the study employed self-made questionnaires and academic records. The results revealed a neutral perception of study hours (mean = 3.1) and a very satisfactory academic performance (mean grade = 85). A weak negative correlation ($r = -0.24239$) was found between study hours and performance, suggesting that more time spent does not necessarily lead to higher achievement. This highlights the need to focus on the quality and effectiveness of study strategies rather than duration alone. The study contributes to existing literature by emphasizing that optimal academic outcomes in mathematics depend on strategic and effective study habits, not solely on the length of study time.

## INTRODUCTION

Mathematics is essential in developing logical thinking, problem-solving, and analytical skills. Despite its importance, many students perceive mathematics as a challenging subject due to its abstract concepts and the time required for comprehension. According to Kumari (2015), mathematics is fundamental in cultivating reasoning, while Fajemidagba (2015) emphasized its essential role in secondary education. The problem arises when students lack adequate time to fully grasp mathematical concepts, potentially leading to decreased academic performance.

Time is a crucial, irreplaceable resource in learning. Necati (2010) underlined the importance of effective time use, especially in the absence of guidance. Razali (2018) added that time influences not only academic but also personal development. While time spent studying has traditionally been seen as a predictor of success, conflicting evidence suggests that students may benefit more from how they study rather than how long they study. Given these concerns, this study aims to examine whether the number of hours students spend studying mathematics has a measurable impact on their academic performance.

## METHODS

*2.1 Research Design* This research employed a descriptive-correlational design to analyze the relationship between study hours and academic performance in mathematics.

*2.2 Participants* Participants were selected Grade 10 students from Rufino Asi National High School.

*2.3 Instruments* A researcher-made questionnaire assessed students' perceptions, and academic records were used to obtain their mathematics grades. The perception data were collected using a 5-point Likert scale, while academic performance was measured using quarterly grade averages.

*2.4 Data Collection Procedure* Permission was granted by the School Head and Mathematics teacher. The researcher explained and distributed the questionnaires and later collected them for analysis.

*2.5 Statistical Treatment* The data were analyzed using the mean and Pearson product-moment correlation coefficient to determine relationships between variables. The significance level was set at 0.05.

## RESULTS

*3.1 Level of Perception* The overall mean score of students' perception of time spent studying mathematics was 3.1, indicating a neutral standpoint. This suggests that students neither agreed nor disagreed that they spend enough time studying mathematics.

*3.2 Academic Performance* Students' academic performance had an overall mean grade of 85, categorized as "Very Satisfactory." This reflects consistent academic achievement among the sample group.

*3.3 Relationship Between Variables* Using Pearson correlation, the study found a weak negative correlation (r = -0.24239) between the number of hours spent studying and academic performance. This suggests that additional study time does not automatically lead to better academic outcomes and that other factors may have more significant influence on performance.

## DISCUSSION

The findings suggest that the number of hours students dedicate to studying mathematics does not strongly correlate with academic success. Although the participants reported neutral perceptions of their study time, they performed well academically, with a very satisfactory mean grade. The weak negative correlation between time spent and performance implies that factors such as study quality, learning methods, or even stress from overstudying may affect outcomes more than study duration itself.

These results support the findings of Skilling et al. (2021), who emphasized that student engagement and the quality of learning strategies are more important than the quantity of study time. It is also possible that students who study for long hours do so because they find the subject more challenging, which might explain the inverse relationship observed.

Limitations of this study include a relatively small sample size, the reliance on self-reported data, and the lack of control over other variables such as teaching style, home environment, and access to learning materials. Future research should investigate these other variables and focus on evaluating the effectiveness of various study methods.

In conclusion, improving academic performance in mathematics may depend more on how students study rather than how long they study. Schools and educators should focus on teaching effective study strategies and time management skills, rather than encouraging longer study hours alone.

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