

**UNIVERSITI TEKNOLOGI MARA**

**TECHNICAL REPORT**

**AN APPLICATION OF FUZZY ANALYTIC NETWORK  
PROCESS IN EVALUATING FACTORS AFFECTING THE  
DIFFICULTIES IN LEARNING MATHEMATICS**

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## **ABSTRACT**

Mathematics is a crucial subject that students in Malaysia must successfully navigate if they intend to pursue further studies. This is largely due to the established academic framework that has been in place for several years. However, the pass rate for mathematics tends to be lower compared to other subjects. It is because some students find it a difficult subject to learn, and usually they struggle with the problem-solving skills. Without a solid understanding of fundamental mathematical concepts like addition, subtraction, multiplication, and division, students face challenges when advancing to more intricate mathematical problems. This study aims to identify the primary and secondary factors contributing to the challenges in learning mathematics among students at UiTM Seremban 3. In this study, the Fuzzy Analytic Network Process (FANP) method has been chosen to evaluate these factors. FANP is an exceptional decision-making tool that enables the seamless integration of qualitative and quantitative factors within a complex network of relationships. Next, we will evaluate the necessary factors to rank them and identify the most influential factors in the challenges of learning mathematics. By calculating the weight of the factors and normalizing the weight, the rank of the factors can be identified. The results indicate that mathematical anxiety plays a major role, with mathematical concepts posing the second-biggest challenge, and language skills closely behind. Consequently, this study is poised to provide valuable assistance to students in overcoming their mathematical learning difficulties.