

## The Influence of Interest, Beliefs, and Identity with Mathematics on Achievement

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**Abstract :** This study investigated factors that influence mathematics achievement based on a sample of ninth-grade students (N = 21,444) from the High School Longitudinal Study of 2009 (HSL09). Key aspects studied included efficacy in mathematics, interest and enjoyment of mathematics, identity with mathematics and future utility beliefs and how these influence mathematics achievement. The predictability of mathematics achievement based on these factors was assessed using correlation coefficients and multiple linear regression. Spearman rank correlations and multiple regression analyses indicated positive and statistically significant relationships between the explanatory variables: mathematics efficacy, identity with mathematics, interest in and future utility beliefs with the response variable, achievement in mathematics.

**Keywords :** Mathematics achievement, math efficacy, mathematics interest, factors influence

**Conference Title :** ICEMSET 2020 : International Conference on Education in Mathematics, Science, Engineering and Technology

**Conference Location :** Bali, Indonesia

**Conference Dates :** January 13-14, 2020