

A multilevel modelling of growth mindset relation to mathematics student achievement

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ABSTRACT

Mathematical skills are one of the most important skills for students, especially in facing era of Industrial Revolution 4.0. This study aims to determine factors that affect mathematics achievement of Indonesian students based on the 2018 Program for International Student Assessment (PISA) data. The method used is an inferential statistical method using two-level multilevel modeling to accommodate variation within and between student and school levels. Multilevel modeling is a technique for handling structured data. The response variable in this study was students' mathematics achievement. The explanatory variables include gender, index of socio economic and cultural status (ESCS), and growth mindset. The results showed that gender, growth mindset, ESCS were significant predictors for the student mathematics achievement. Girls are found to have higher mathematics achievement than boys in Indonesia. As the growth mindset increases, mathematics achievement also increases.

Kata Kunci: *multilevel, growth mindset, mathematics achievement, PISA*