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Prediction of Students' Ability to Difficulty Level of Problem Based on Linear Method

Prediksi Kemampuan Siswa terhadap Tingkat Kesulitan Soal Berbasis Metode Linear

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Knowing the ability of students is something that is important to formulate exam questions correctly, namely questions with the appropriate level of difficulty. However, in general, exam questions are prepared with the assumption that students' abilities are the same, so the results obtained do not reflect the actual abilities of students. This study focuses on predicting the ability of grade 6 students in mathematics. The data was obtained from 400 exam questions with 8 materials done by 23 students. Students' ability categories are grouped into 3, namely high ability, medium ability, and low ability. The difficulty of the questions is grouped into difficult questions, medium questions, and easy questions based on the assessments of 5 different class teachers. Our research uses the linear regression method and successfully shows that there is a close relationship between students' abilities and the level of difficulty of the questions. The difficulty level of the questions contributed 63% to the students' abilities. The standard error of 0.04905 means that the regression model is the right model in determining students' abilities.

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