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How affective-motivational variables and approaches to learning predict mathematics achievement in upper elementary levels.

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Summary: The relationship between students' motivation and attitudes towards mathematics, the approaches to learning they use, and their achievement in mathematics has been widely documented in middle school and further academic levels. However, the empirical research in earlier educational stages remains scarce. This study analyzed the predictive value of affective-motivational variables and deep and surface approaches to learning on mathematics achievement in a sample of 524 upper elementary students. Multiple linear regression analysis was used to examine the predictors of mathematics achievement. Mathematics enjoyment positively predicted mathematics achievement and age and the use of the surface approach to learning negatively predicted mathematics achievement. The variables in the model explained 21.3% of the variance in mathematics achievement. Mean differences in the affective-motivational variables and approaches to learning occurred between students with very high and very low achievement in mathematics, yielding further evidence of important differences between the achievement extremes.

Classification: C23 C33

Keywords: achievement; affective-motivational components; approaches to learning; elementary school
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