Math Self-Concept, Stereotypes, Achievement and Anxiety – A Cross-Sectional Study

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Abstract

The present study assessed both implicit and explicit math self-concept, math-gender stereotype, math achievement, and math anxiety in 260 Swiss children from 1st, 3rd, and 5th grade. In line with prior research, explicit math self-concepts were found to decrease as a function of participant age cohort. Furthermore, already children in the first grade were found to implicitly endorse the math-gender stereotype. In line with these findings, math anxiety was found to be higher in older cohorts than in younger, and it was non-trivial in all age groups. Lastly, as expected, math achievement was higher for older children. Taken together, the present study found patterns of stereotypes increasing as a function of age, with simultaneous increases in math anxiety, and simultaneous decreases in math self-concept. These findings underline the importance of studying math-related constructs in children. Understanding these patterns will contribute to sustaining STEM interests in young children and adolescents.

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