

ZMATH 2015b.00129

Niepel, Christoph; Brunner, Martin; Preckel, Franzis

Achievement goals, academic self-concept, and school grades in mathematics: longitudinal reciprocal relations in above average ability secondary school students.

Contemp. Educ. Psychol. 39, No. 4, 301-313 (2014).

Summary: This study examined the longitudinal reciprocal relations between academic self-concept, achievement goals (i.e., performance-approach, performance-avoidance, and mastery), and achievement (i.e., self-reported grades) in mathematics. The research aim was twofold. First, we examined the confound hypothesis, which states that performance-approach goals do not feature any incremental validity in predicting achievement over and above students' competence perceptions (i.e., academic self-concept). In addition, we expanded research on the confound hypothesis by also investigating performance-avoidance and mastery goals. Second, we investigated the predictive validity of all three achievement goals for changes in academic self-concept. Seven hundred sixty-nine students (50.78% female) attending the highest track of the German three-tier secondary school system participated in three waves of measurement in grades 5, 6, and 8. Our findings confirmed the confound hypothesis: Performance-approach goals did not explain achievement over and above academic self-concept. The same findings applied to performance-avoidance and mastery goals. Furthermore, performance-approach goals were positively related to academic self-concept changes, whereas performance-avoidance goals showed a negative relation to academic self-concept changes over time. Mastery goals were not associated to changes in academic self-concept. Academic self-concept and achievement showed positive reciprocal relations. To conclude, our results point to complex relations between achievement goals, academic self-concept, and academic achievement over time.

Classification: C23 C33

Keywords: academic self-concept; achievement goals; mathematics achievement; motivation; longitudinal data

doi:10.1016/j.cedpsych.2014.07.002