

# Social-emotional growth linked to higher math and English scores

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Does empathy relate to algebra? Can social awareness predict one's grasp of Shakespeare?

Research has shown that social-emotional learning (SEL) skills are a

strong predictor of educational and career achievement. A new study finds that SEL changes from year to year also predict academic success.

Several California school districts—known as CORE districts—survey students on their SEL levels, including their [social awareness](#) and self-management, as an effort to gather and share information for improved student outcomes.

Researchers evaluated the four aspects of SEL—[growth mindset](#), social awareness, self-efficacy, and self-management to determine whether changes in individual reports from one year to the next predicted changes in math and English language arts (ELA) scores and attendance for students from fourth through sixth grade.

They found that increases in growth mindset (belief that abilities can improve with effort) and self-management (regulation of one's emotions, thoughts, and behaviors) were the strongest predictors of math and ELA scores.

"Often we assume that changes in self-report measures are unreliable, but our work finds that within this sample of middle school students, an increase in self-reported growth mindset or self-management is associated with test score gains that can range the equivalent of between eight and 45 days of learning," says Klint Kanopka, assistant professor of applied statistics at NYU Steinhardt.

For their study, the authors evaluated longitudinal data for 49,216 students in the CORE districts for school years 2014–15, 2015–16, and 2016–17. They used SEL scores, math and ELA standardized [test scores](#), and attendance rates to calculate whether SEL changes predict changes in test scores and/or attendance.

Their findings, published in [AERA Open](#), confirmed that students' self-

reported SEL increases in growth mindset and self-management predicted ELA and math achievement. For example, a student reporting a one standard deviation increase in growth mindset as she moved from fourth to fifth grade is expected to have a concurrent increase in her ELA score of 0.028 SD, the equivalent of 2.56 points. In addition, they found that in a typical school year, an increase in self-efficacy (one [standard deviation](#)) is associated with attending 0.11 additional days of school.

"This work provides a key piece of evidence for the utility of monitoring longitudinal changes in self-reported SEL levels, giving policy researchers another measurement tool for evaluating the impacts of educational interventions," Kanpoka says.

**More information:** Klint Kanopka et al, Are Changes in Reported Social-Emotional Skills Just Noise? The Predictive Power of Longitudinal Differences in Self-Reports, *AERA Open* (2024). [DOI: 10.1177/23328584241233277](#)

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