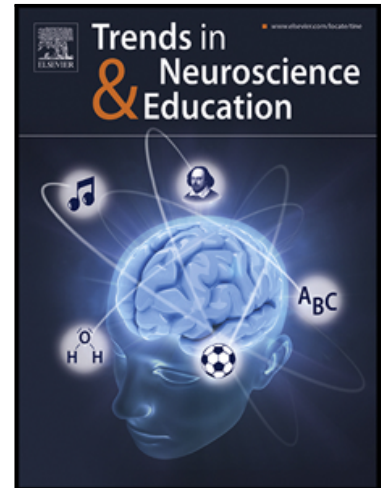


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Effects of Teaching the Concept of Neuroplasticity to Induce a Growth Mindset on Motivation, Achievement, and Brain Activity: A Meta-Analysis

Jérémie Blanchette Sarrasin , Lucian Nenciovici ,
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Effects of Teaching the Concept of Neuroplasticity to Induce a Growth Mindset on Motivation, Achievement, and Brain Activity: A Meta-Analysis

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Keywords

Neuroplasticity, Mindset, Implicit Theory of Intelligence, Motivation, Achievement, Brain activity

ABSTRACT—Inducing a growth mindset in students has been shown to impact positively on motivation, academic achievement, and brain activity. However, some studies have yielded different results and authors rarely provide reasons to explain this inconsistency. In an effort to better understand the conflicting evidence, we conducted a meta-analysis of 10 peer-reviewed studies including participants from age 7 to adulthood. Results show that inducing a growth mindset by teaching neuroplasticity has an overall positive effect on motivation, achievement, and brain activity. The results also reveal that this intervention seems more beneficial for at-risk students, especially regarding mathematics achievement. These findings thus suggest that inconsistent evidence across empirical studies could be explained by students' characteristics and subject area.

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