

25.5.2026

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**Title**

Does teaching rigorously really enhance undergraduates' intellectual development? : The relationship of academic rigor with critical thinking skills and lifelong learning motivations / K. C. Culver ; John Braxton ; Ernie Pascarella

**Publication year**

2019

**Source/Footnote**

In: Higher education. - 78 (2019) 4, S. 611 - 627

**Inventory number**

48678

**Keywords**

Ausland : USA : einzelne Hochschulen ; Ausland : USA : Studenten, Studium, Lehre ; Ausland : USA : Forschung, Hochschullehrer

**Abstract**

While previous research has examined outcomes related to academic rigor, mixed findings have resulted from differing conceptualizations of rigor as well as varying methodological approaches. Defining rigor as those in-class practices and assignments that require students to engage in deep learning and demonstrate cognitive complexity, we use longitudinal student-level data from 46 four-year institutions in the USA to examine the relationship of academic rigor with undergraduate development of critical thinking skills and two aspects of self-motivated learning (need for cognition and positive attitudes towards literacy). We find that academic rigor is positively related to both aspects of self-motivated learning at the end of the first year of college, with an advantage for students who enter college with low ACT scores and those with less positive attitudes about reading and writing. Rigor is positively related to all three outcomes at the end of the fourth year, with the

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magnitude of these relationships tending to increase from the first year to the fourth year. Further, by disaggregating the composite measure of rigor into subscales that separate rigorous in-class practices from rigorous exams and assignments, we find that the relationship between rigor and intellectual development is sometimes driven by one form of rigorous practice, with in-class rigor especially benefitting the critical thinking skills of first-generation students. These findings have important implications for instructors, administrators, and scholars in higher education. (HRK / Abstract übernommen)