

AB Textbook Broke

Why not open?



#textbookbrokeab

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There is a body of empirical studies on the impacts of open educational resources (OER) on students, which consistently return the two conclusions:

- Courses using OER produce the same learning outcomes and levels of student performance as courses using paid textbooks, revealing that the use of OER does not negatively impact student learning.
- Students avoid taking courses because of course material costs, or they don't buy textbooks for their course. The result is a negative impact on their learning in courses and over their entire degree

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## Studies Examining the Impact of OER on Student Learning

There is a small, but emergent body of literature demonstrating the quality of OER and open textbooks in particular. The benefits of open textbooks on learning are perceived by both students and faculty (Hilton, 2016; Jhangiani et al. 2016; de los Arcos et al., 2015). A Canadian study found 96% of student respondents felt that open textbooks were equal to or superior in quality to traditional commercial textbooks (Jhangiani and Jhangiani, 2017). In another Canadian study, 93% of students in a Physics 100 course found open textbooks comparable or superior in quality to traditional textbooks (Hendricks et al, 2017). Several authors have found comparable performance by students in courses using OER and those using traditional textbooks (Clinton, 2019; Jhangiani et al., 2018; Fischer et al, 2015; Hilton and Laman, 2012). In a comprehensive review of several empirical studies on OER use, Hilton (2016, p.586) concludes:

*In total 46,149 students have participated in studies relating to the influence of OER on learning outcomes. Only one of the nine studies on OER efficacy showed that the use of OER was connected with lower learning outcomes in more instances than it was with positive outcomes, and even this study showed that the majority of classes were non-significant differences. Three had results that significantly favoured OER... an emerging finding is that utilizing OER does not appear to decrease student learning.*

Subsequent reviews of more recent studies have resulted in similar conclusions (Hilton, 2018; Hilton, 2020). In his most recent review of the research, Hilton (2020) has found that 95% of studies on the impact of OER show no evidence of lower learning outcomes for students.

Instructors also see several benefits to using open educational resources. OER can improve pedagogy by acting as a source for new ideas in teaching and pedagogical innovation. Multiple studies have found that they primary benefit for instructors using OER is that they are a source of ideas and inspiration (Jhangiani et al., 2016; de los Arcos et al., 2015) and can broaden teaching methods (Weller et al., 2017). A study of OER use by faculty members at Athabasca University found that academic quality was the most significant factor in both use and creation of OER (McKerlich et al., 2013).

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## Studies on the Impact of Textbook Costs on Student Performance

Several studies have indicated that students will forgo purchasing required textbooks because of cost (Hilton, 2018; Senack, 2014; Jhangiani and Jhangiani, 2017; Henricks et al., 2017). In a recent Canadian study involving 320 post-secondary students in British Columbia over half (54%) noted that they had avoided purchasing a required textbook at least once in the past 12 months (Jhangiani and Jhangiani, 2017). A study of over 22,000 Florida post secondary students found that not purchasing a textbook resulted in 37.6% of students earning a poor grade and 19.8% failing the course (Hilton, 2018). Both on campus and online students will engage in strategies to avoid textbook costs, with on campus students more likely to forgo purchasing a textbook, while online students are more likely to avoid courses with textbook costs (Anderson and Cuttler, 2020). Use of open textbooks also makes students significantly less likely to withdraw from a course (Delgado et al., 2019). Importantly, it has been noted that the negative impacts of textbook costs – students working more hours and/or taking on more student debt – are disproportionately felt by students who are already economically disadvantaged Jhangiani and Jhangiani, 2017). It has also been found that students view professors who use open learning materials more positively (Vojtech and Grissett, 2017), and use of OER can result in higher evaluations of instructors by students (Hillman et al., 2021).