

## The Doer Effect

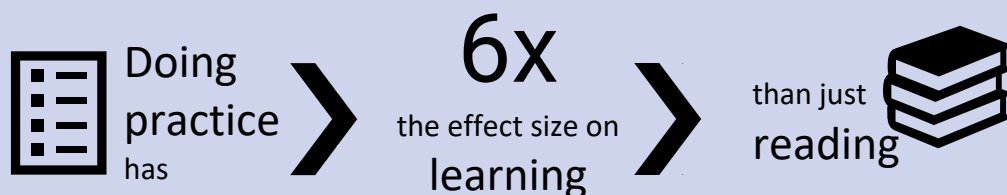
*The doer effect is the learning science principle that proves students who do practice questions while reading new content have higher learning gains than those who only read.*

### The Doer Effect: What is it?

The Doer Effect—as noted in its name—is the effect of a design approach called Learn by Doing. The Learn by Doing approach integrates practice opportunities into the learning material at frequent intervals. It is the engagement with these practice questions which creates the Doer Effect.

### From the Research

The Doer Effect has been the focus of both academic and industry research. Studies of interactive courseware from Carnegie Mellon’s Open Learning Initiative show that students who did more interactive activities had a learning benefit approximately six times that of reading text and three times that of watching video<sup>1</sup>. Follow-up analysis showed this relationship wasn’t coincidental; doing caused learning<sup>2</sup>.



Acrobatiq by VitalSource—originally a startup from the Open Learning Initiative—has replicated these findings in courseware used by its college and university partners. For example, in a recent research study<sup>3</sup>, Acrobatiq analyzed data from courseware being used at a major four-year public university. The analysis showed a correlation between the amount of practice students did and their summative quiz scores. The more practice students did, the better their learning outcomes were. Acrobatiq also partnered with a major online institution to analyze courseware engagement data with final exam scores. Results showed the same causal relationship—that doing practice causes learning<sup>4</sup>.

### Learn by Doing: Creating the Doer Effect

Acrobatiq’s courseware—both natively authored and created by our SmartStart process—includes Learn by Doing activities with the content. These formative activities allow students to practice what they have learned shortly after learning it. By doing these practice questions, students are benefiting from the Doer Effect.

