## Speed Reading Promises Are Too Good to Be True, Scientists Find

January 14, 2016


Learning to speed read seems like an obvious strategy for making quick work of all the emails, reports, and other pieces of text we encounter every day, but a comprehensive review of the science behind reading shows that the claims put forth by many speed reading programs and tools are probably too good to be true. Examining decades' worth of research on the science of reading, a team of psychological scientists finds little evidence to support speed reading as a shortcut to understanding and remembering large volumes of written content in a short period of time.
"Speed reading training courses have been around for decades, and there has been a recent surge in the number of speed reading technologies that have been introduced to the consumer market," says Elizabeth Schotter, a psychological scientist at the University of California, San Diego and one of the authors of the report.
"We wanted to take a close look at the science behind reading to help people make informed decisions about whether to believe the claims put forth by companies promoting speed reading technologies and training courses."

The report, published in Psychological Science in the Public Interest, a journal of the Association for Psychological Science, shows that that there are no magic shortcuts when it comes to reading more quickly while still fully understanding what we've read.
"The available scientific evidence demonstrates that there is a trade-off between speed and accuracy - as readers spend less time on the material, they necessarily will have a poorer understanding of it," explains Schotter.

Reading is a complex dance among various visual and mental processes, and research shows that skilled readers already read quickly, averaging 200 to 400 words per minute. Some speed reading technologies claim to offer an additional boost by eliminating the need to make eye movements by presenting words rapidly in the center of a computer screen or mobile device, with each new word replacing the previous word. The problem, Schotter and colleagues find, is that eye movements account for no more than $10 \%$ of the overall time we spend reading, and eliminating the ability to go back and reread previous words and sentences tends to make overall comprehension worse, not better.

The biggest obstacle, science shows, isn't our vision but rather our ability to recognize words and process how they combine to make meaningful sentences.
"So-called solutions that emphasize speeding up the input without making the language easier to understand will have limited efficacy," says Schotter.

While some may claim prodigious speed reading skills, these claims typically don't hold up when put to the test. Investigations show that these individuals generally already know a lot about the topic or content of what they have supposedly speed-read. Without such knowledge, they often don't remember much of what they've read and aren't able to answer substantive questions about the text.

This doesn't mean that we're necessarily stuck reading at the same speed all the time, however. Research does show that effective skimming - prioritizing more informative parts of a text while glossing over others - can be effective when we're only interested in getting the gist of what we're reading, instead of a deeper, more comprehensive understanding.

In fact, data suggest that the most effective "speed readers" are actually effective skimmers who already have considerable familiarity with the topic at hand and are thus able to pick out key points quickly.

The one thing that can help boost overall reading ability, science shows, is practicing reading for comprehension. Greater exposure to writing in all its different forms provides us with a larger and richer vocabulary, as well as the contextual experience that can help us anticipate upcoming words and make inferences regarding the meaning of words or phrases we don't immediately recognize.

Ultimately, there is no one ability or strategy that will enable us to zip through a novel in one sitting or process an inbox full of emails over the course of a lunch break.
"There's no quick fix," says Schotter. "We urge people to maintain a healthy dose of skepticism and ask for supporting scientific evidence when someone proposes a speed reading method that will double or triple their reading speed without sacrificing a complete understanding."

The report is co-authored by the late Keith Rayner of the University of California, San Diego, Michael E. J. Masson of the University of Victoria, Mary C. Potter of the Massachusetts Institute of Technology, and Rebecca Treiman of Washington University in St. Louis, and is accompanied by a commentary from David A. Balota of Washington University in St. Louis.

The report and accompanying commentary are available to the public online.

During the preparation of this article, K. Rayner and E.R. Schotter were supported by the Atkinson Family Endowment, grant R01 HD065829 from the National Institutes of Health, and a gift from the Microsoft Corporation. M.E.J. Masson was supported Discovery Grant 7910 from the Natural Sciences and Engineering Research Council of Canada.

