

# Need to remember something? Better draw it, study finds

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Researchers at the University of Waterloo have found that drawing pictures of information that needs to be remembered is a strong and reliable strategy to enhance memory.

We pitted [drawing](#) against a number of other known encoding strategies, but drawing always came out on top," said the study's lead author,

Jeffrey Wammes, PhD candidate in the Department of Psychology. "We believe that the benefit arises because drawing helps to create a more cohesive [memory](#) trace that better integrates visual, motor and semantic information."

The study, by Wammes, along with fellow PhD candidate Melissa Meade and Professor Myra Fernandes, presented student participants with a list of simple, easily drawn [words](#), such as "apple." The students were given 40 seconds to either draw the word, or write it out repeatedly. They were then given a filler task of classifying [musical tones](#) to facilitate the retention process. Finally, the researchers asked students to freely recall as many words as possible from the initial list in just 60 seconds.

The study appeared in the the *Quarterly Journal of Experimental Psychology*.

"We discovered a significant recall advantage for words that were drawn as compared to those that were written," said Wammes. "Participants often recalled more than twice as many drawn than written words. We labelled this benefit 'the drawing effect,' which refers to this distinct advantage of drawing words relative to writing them out."

In variations of the experiment in which students drew the words repeatedly, or added visual details to the written letters, such as shading or other doodles, the results remained unchanged. Memory for drawn words was superior to all other alternatives. Drawing led to better later memory performance than listing physical characteristics, creating mental images, and viewing pictures of the objects depicted by the words.

"Importantly, the quality of the drawings people made did not seem to matter, suggesting that everyone could benefit from this memory

strategy, regardless of their artistic talent. In line with this, we showed that people still gained a huge advantage in later memory, even when they had just 4 seconds to draw their picture," said Wammes.

While the drawing effect proved reliable in testing, the experiments were conducted with single words only. Wammes and his team are currently trying to determine why this memory benefit is so potent, and how widely it can be applied to other types of information.

**More information:** Jeffrey D. Wammes et al. The drawing effect: Evidence for reliable and robust memory benefits in free recall, *The Quarterly Journal of Experimental Psychology* (2016). [DOI: 10.1080/17470218.2015.1094494](https://doi.org/10.1080/17470218.2015.1094494)

Provided by University of Waterloo

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