

Handwriting Beats Typing and Watching Videos for Learning to Read

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There is something intrinsically satisfying about crafting a handwritten thank-you note or jotting down a thoughtful letter to a friend or loved one. Recently, however, people have had far fewer opportunities to put pen to paper, particularly with the widespread use of texting and voice-dictation technologies.

But is it wise to relegate handwriting to the dustbin of history? New research published in the journal [*Psychological Science*](#) reveals that handwriting may still play a valuable part in language instruction, helping people learn certain skills far faster than they can by typing or watching videos.

Video on handwriting research. Credit: Purdue University

“The question out there for parents and educators is why should our kids spend any time doing handwriting,” said [Brenda Rapp](#), a Johns Hopkins University professor of cognitive science and senior author on the paper. “Obviously, you’re going to be a better hand writer if you practice it. But since people are handwriting less, then, maybe, who cares? The real question is, are there other benefits to handwriting that have to do with reading and spelling and understanding? We find there most definitely are.”

Rapp and lead author [Robert Wiley](#), a former Johns Hopkins University doctoral student who is now a professor of psychology at the University of North Carolina, Greensboro, conducted an experiment in which 42 people were taught the Arabic alphabet. The researchers split the participants into three learning groups: writers, typers, and video watchers.

All participants learned the letters one at a time by watching videos that showed them being written with audio of their names and sounds. After being introduced to each letter, the three groups attempted to learn what they had seen and heard in different ways. The video group saw a letter flash on-screen and had to say if it was the same letter they'd just seen. The typers had to find the letter on the keyboard. The writers had to copy the letter with pen and paper.

After six sessions, all participants could recognize the letters and made few mistakes when tested. But the writing group reached this level of proficiency faster than the other groups—some in as few as two sessions.

Next, the researchers wanted to determine to what extent, if at all, the groups could generalize this new knowledge and apply it more broadly. For example, could the study participants use the letters to read and spell unfamiliar words?

The writing group performed decisively better in these new tasks.

“The main lesson is that even though every group was good at recognizing letters, the [group that received] writing training was the best at every other measure. And they required less time to get there,” Wiley said.

The writing group ended up with more of the skills needed for expert adult-level reading and spelling. Wiley and Rapp say that's because handwriting reinforces visual and aural information from lessons.

“With writing, you're getting a stronger representation in your mind that lets you scaffold toward these other types of tasks that don't in any way involve handwriting,” Wiley said.

Although the participants in the study were adults, Wiley and Rapp expect they'd see the same results in children. The findings have implications for classrooms, where pencils and notebooks have taken a backseat in recent years to tablets and laptops, and where teaching cursive handwriting is all but extinct.

The findings also suggest that adults trying to learn a language with a different alphabet should supplement what they're learning through apps or tapes with good old-fashioned notetaking.