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Study Suggests Writing by Hand Is Best for Learning New Material

By [Sarah Fielding](#) | Updated on July 23, 2021

✓ [Fact checked](#) by [Nicholas Blackmer](#)



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Key Takeaways

A new study found that writing by hand led to proficiency quicker when learning new letters than visual and computer-based methods.

Participants in the longhand group were also better at spelling and

Experts have repeatedly found that physically writing things down leads to better retention.

In this day and age, it's rare to see anyone carrying around a pen and paper anymore. The mini computers in our pockets and larger ones at our desks have made physically jotting things down feel almost pointless. Why bother writing something down in a place you may lose it when it could get backed up on the cloud and exist forever? Well, we may be continually moving towards an increasingly digital society, but it turns out there are some reasons not to count out writing by hand just yet.

A recent study published in *Psychological Science* found that [learning](#) letters through physical writing may be more beneficial than less-traditional options such as visual recognition and typing. The 42 participants learned the Arabic alphabet first by watching a video that demonstrated each letter being written down and sounded out. Then they were split into three groups, attempting to identify a letter or word they just saw by confirming on a screen whether a letter or word was the same as what they had seen a moment earlier, by typing the appropriate key or keys on a keyboard, or by copying it with pen and paper. ^[1]

While all the participants reached proficiency by six sessions, the writing group achieved it faster. They also were better than the other two groups at using the letters to spell new words and to read unfamiliar words. ^[1]

“Handwriting truly is a more complex cognitive process than keyboarding, by combining neurosensory experiences with fine motor skills, inextricably choreographing both movement and thought.” [D. Antonio Cantù, PhD](#), a professor and chairperson of the department of teacher education and [online doctor of education](#) program.

Not only does working longhand have benefits, but it also opens up the brain to focus on other critical points and retain them. “By integrating perceptual-motor skills and the kinesthetic (perception of the physical movement) process of sending the information to our writing hand, the task of writing becomes automatic. [This] frees up working [memory](#)—

[Gottesman](#), an occupational therapist and director of Sensation New York.

Basically, handwriting is excellent for recall—much better than typing, adds Cantù.

Handwriting Versus Typing For Learning New Information

Typing does have benefits—speed, accessibility, and sharing capability, to name a few—but handwriting allows individuals to develop a stronger conceptual understanding when it comes to processing information. One of the reasons for this is the need to understand and summarize information versus transcribing it verbatim, as is often the case when taking notes on a laptop, explains Cantù.

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— D. ANTONIO CANTÙ, PHD

Another disadvantage of using your computer versus pen and paper? Easy diversions. According to [Anna Moss, MPhil](#), founder of Mind The Test, even if you work to avoid distractions such as the internet or games, this inhibition uses up brainpower that you could otherwise apply to focus. “The best way to avoid this paradox—using up working memory if you inhibit yourself, and getting totally distracted if you don’t—is to leave the computer at home and take notes by hand whenever possible.” she says

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How to Integrate This Knowledge Into Your Life

Unless you're in a rush or need something typed, consider [handwriting](#) next time you need to put information down. For example, when doing occupational therapy sessions with kids, Gotteman will introduce handwriting into every activity, even if it's simply to keep score during a game.



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— ANNA MOSS, MPHIL

According to Gottesman, you can take opportunities such as writing:

Letters and cards to loved ones

Goals that you would like to accomplish

Grocery lists

Thoughts and emotions in journals

Stories and memories alongside the feelings that accompanied them

For students and employees, go through your day and see if there are opportunities to integrate writing by hand into your routine. In a 2014 report, researchers compared students' abilities to answer conceptual questions based on if they took notes by longhand or digitally. In each study, those who physically took notes performed better than those who used a laptop. ^[2]

So, if you're heading to a lecture or meeting, can you make do with a pen and pad for taking notes? Try doing this when possible and see if it changes how much you retain new information.

What This Means For You

Take opportunities when available to use longhand and encourage children in your care to do the same. This change of habit may help you recall more information in the long-term.

Read Next: [Writing by Hand Boosts Brain Activity and Fine Motor Skills, Study Shows](#)

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