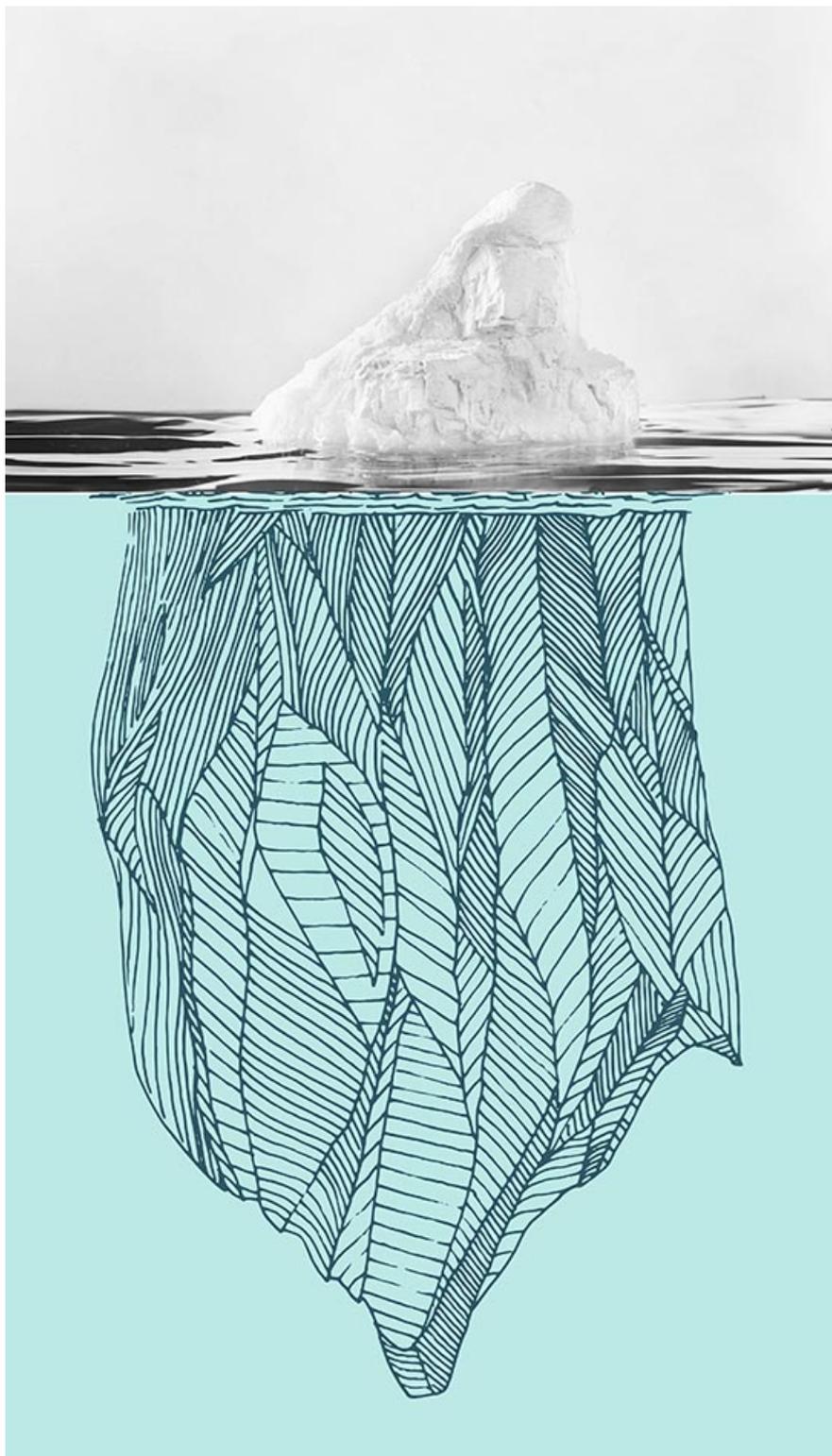


# What You Miss When You Take Notes on Your Laptop



Even in my relatively short foray into office life, I notice that few people bring a pen and notebook to meetings. I've been told that over the years, the spiral notebooks and pens once prevalent during weekly meetings have been replaced with laptops and slim, touch-screen tablets.

I suppose it makes sense. In a demanding new age of technology, we are expected to send links, access online materials, and conduct virtual chats *while* a meeting is taking place. We want instant gratification, and sending things after the meeting when you're back at your desk feels like too long to wait. It seems that digital note-taking is just more convenient.

But is longhand dead? Should you be embarrassed bringing a pen and paper to your meetings? To answer these questions, I did a little digging and found that the answer is no, according to [a](#)

[study conducted by Princeton's Pam A. Mueller and UCLA's Daniel M. Oppenheimer](#). Their research shows that when you only use a laptop to take notes, you don't absorb new materials as well, largely because typing notes encourages verbatim, mindless transcription.

Mueller and Oppenheimer conducted three different studies, each addressing the question: *Is laptop note taking detrimental to overall conceptual understanding and retention of new information?*

## You and Your Team

For the first study, the researchers presented a series of TED talk films to a room of Princeton University students. The participants "were instructed to use their usual classroom note-taking strategy," whether digitally or

longhand, during the lecture. Later on, the participants “responded to both factual-recall questions and conceptual-application questions” about the film.

The students’ scores differed immensely between longhand and laptop note takers. While participants using laptops were found to take lengthier “transcription-like” notes during the film, results showed that longhand note takers still scored significantly higher on conceptually-based questions. Mueller and Oppenheimer predicted that the decrease in retention appeared to be due to “verbatim transcription.”

But, they predicted that the detriments of laptop note taking went beyond the fact that those with computers were trying to get every word down. In their second study, Mueller and Oppenheimer instructed a new group of laptop note takers to write *without* transcribing the lecture verbatim. They told the subjects: “Take notes in your own words and don’t just write down word-for-word what the speaker is saying.”

These participants also watched a lecture film, took their respective notes, and then took a test.

They found that their request for non-verbatim note taking was “completely ineffective,” and the laptop users continued to take notes in a “transcription like” manner rather than in their own words. “The overall relationship between verbatim content and negative performance [still] held,” said the researchers.

In a third study, Mueller and Oppenheimer confronted a final variable — they found that laptop note takers produced a significantly greater word count than longhand note takers. They wondered, “Is it possible that this increased external-storage capacity could boost performance on tests taken after an opportunity to study one’s notes?” So while the immediate recall on the lecture is worse for laptop note takers, do their copious notes help later on?

For this study, participants “were given either a laptop or pen and paper to take notes on a lecture,” and “were told that they would be returning the following week to be tested on the material.” A week later, they were given 10 minutes to study their notes before being tested.

And again, though the laptop note takers recorded a larger amount of notes, the longhand note takers performed better on conceptual, and this time factual, questions.

This final test clarified that the simple act of verbatim note taking encouraged by laptops could ultimately result in impaired learning. “Although more notes are beneficial, at least

to a point, if the notes are taken indiscriminately or by mindlessly transcribing content, as is more likely the case on a laptop than when notes are taken longhand, the benefit disappears," said Mueller and Oppenheimer.

Though your days of cramming for tests may be over, you still need to recall pitches, dates, and statistics from meetings. That's why we take notes in meetings. And while there are plenty of ways to [work smarter with digital tools](#), you may remember more if you leave the laptop or tablet at your desk and try bringing a notebook and pen instead.

In addition to your mode of note taking, be extra aware of *what* you're writing. Are you focusing more on recording what a speaker is projecting on a slide show, rather than [actually listening](#) to what is being said? Write your notes in your own words. It'll encourage you to process and summarize what is being said rather than just regurgitating it.

Of course, not every meeting is the same, so you need to be able to distinguish what type of meeting you're attending. Bring your laptop or tablet if you know you'll need to just record a few key dates or a to-do list — and if you need access to materials or the internet. But keep in mind that meetings such as presentations, progress reports, and performance reviews contain information you need to stick. If you ditch your digital ways, and bring the pen and spiral notebook; your memory may thank you.