

Why You Shouldn't Take Notes On Your Laptop or Tablet

When people type their notes, they remember little and understand even less.
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It's a fact: Most students (and employees) can type faster than they can write. So it's only logical that typing notes on a laptop or tablet would be better when listening to a fast paced lecture or presentation than laboriously writing them on a yellow legal pad, right?

Well, it may be logical, but it turns out it is wrong. In [a recent series of studies](#), psychologists Pam Mueller (Princeton) and Daniel Oppenheimer (UCLA) compared the performance of students who were asked to write out their notes on paper or to type them on a laptop. The results were stunning: Consistently across all measures, those who wrote out their notes longhand outperformed those who typed them on their laptops.

Mueller and Oppenheimer had students take notes in a classroom setting. The students were subsequently tested on their [memory](#) for factual details, their conceptual [understanding](#), and their ability to synthesize and generalize the information.

In all cases, students who used laptops took more notes, but their notes were essentially rote transcriptions of the lectures. The information seemed to go from the lecturer to the computer with the student serving as a go-between rather than a learner. In contrast, the notes taken by those writing longhand showed stronger conceptual understanding. Even more surprising, when students were allowed to study their notes before a test a week later, those whose notes were in longhand scored higher across the board.

Why the difference? Mueller and Oppenheimer attribute the results to the differences in the types of [cognitive](#) processing that are triggered by slow writing and rapid typing. Because writing by hand is slower, students can't possibly write down everything they hear. So they take the time to carefully listen, digest, and summarize the material in real time during the lecture. They learn while they listen. Because typing is rapid, students focus on simply getting all the words on paper without actually thinking about what they are typing.

As a professor, I would also conjecture that the students simply assumed it was better to get it all down now and then try to figure out what it means later. But the problem is that the notes they carefully types may not make a lot of sense later in their dorm rooms, and the professor isn't there to clarify. So the opportunity to stop, question, and understand gets lost.

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