# **Note-Taking: By Hand or Computer?**

The resources here include an importance piece of the primary source literature plus student-friendly material in a variety of media.

The Pen is Mightier than the Keyboard: Advantages of Longhand over Laptops for Note Taking http://journals.sagepub.com/doi/pdf/10.1177/0956797614524581

Here's the abstract from Mueller and Oppenheimer's widely discussed 2014 article in *Psychological Science*. The link also provides a pdf of the full-text article.

"Taking notes on laptops rather than in longhand is increasingly common. Many researchers have suggested that laptop note taking is less effective than longhand note taking for learning. Prior studies have primarily focused on students' capacity for multitasking and distraction when using laptops. The present research suggests that even when laptops are used solely to take notes, they may still be impairing learning because their use results in shallower processing. In three studies, we found that students who took notes on laptops performed worse on conceptual questions than students who took notes longhand. We show that whereas taking more notes can be beneficial, laptop note takers' tendency to transcribe lectures verbatim rather than processing information and reframing it in their own words is detrimental to learning."

### A Learning Secret: Don't Take Notes with a Laptop

https://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/ This is a short, student-friendly summary of the research by Muller and Oppenheimer comparing two methods of note taking.

### Students who Take Notes by Hand Outperform those with Laptops

http://www.wsj.com/video/students-who-take-notes-by-hand-outperform-those-with-laptops/4895239D-3172-43F2-89FC-E09CF51A4EA9.htm

The five-minute video discusses several studies (including Mueller & Oppenheimer) of note taking on computers vs by hand.

## Taking Notes by Hand May Be Better than Digitally, Researchers Say

http://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away

This three-minute audio clip from National Public Radio summarizes the recent experiments of Mueller and Oppenheimer on two methods of note taking—a transcript is also included.

#### Take Notes by Hand for Better Long-Term Comprehension

http://www.psychologicalscience.org/news/releases/take-notes-by-hand-for-better-long-term-comprehension.html#.WKXi1yb4-Uk

This is a short, student-friendly summary of the research by Muller and Oppenheimer comparing two methods of note taking.