



Tips for Preparing for Exams



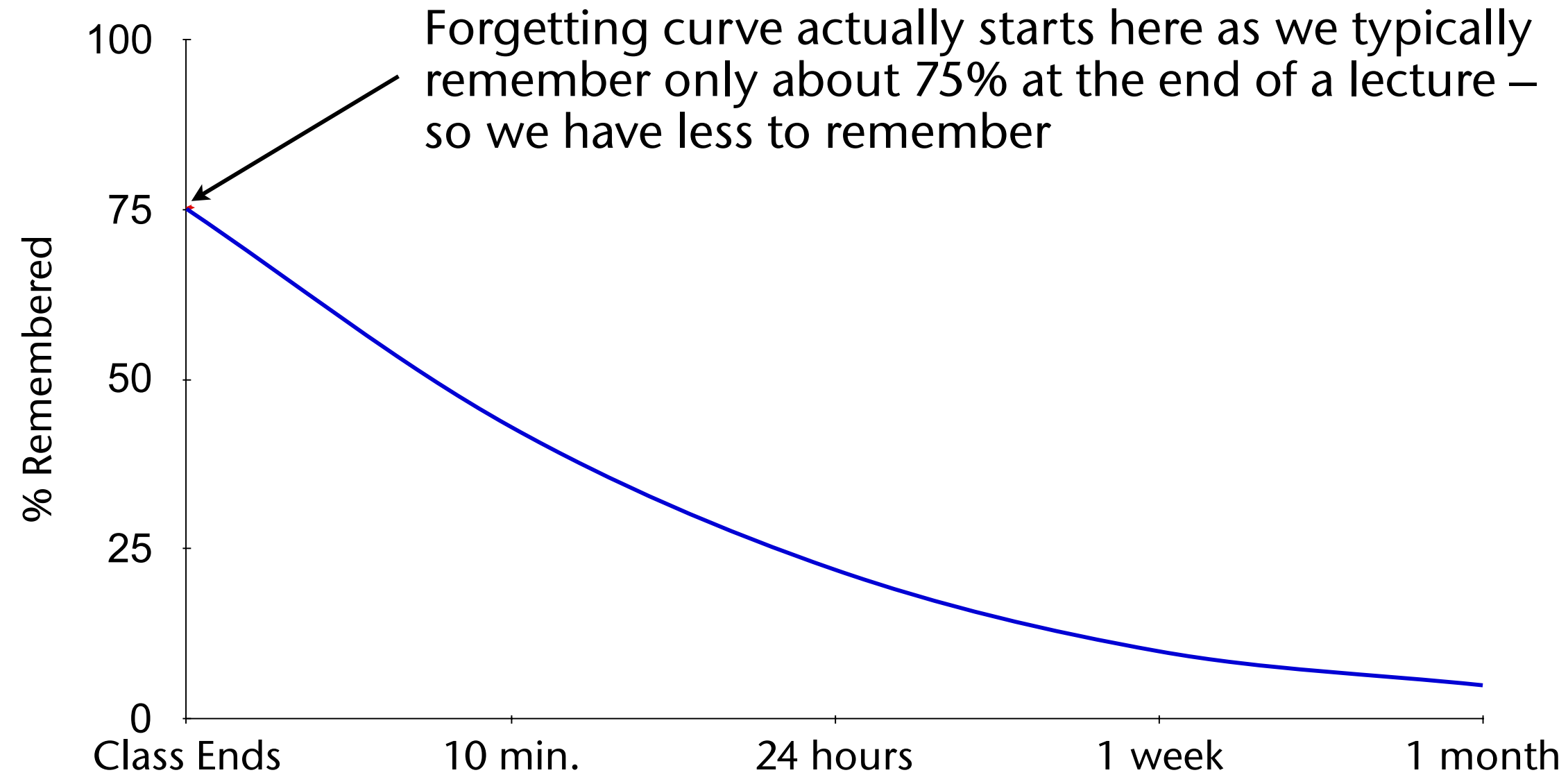
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- Definitive list of topics is the material presented on the slides and in class!
- Learn the technical terms!
 - I don't care whether you learn the English or the German ones

Read Text Books (Lehrbücher) !

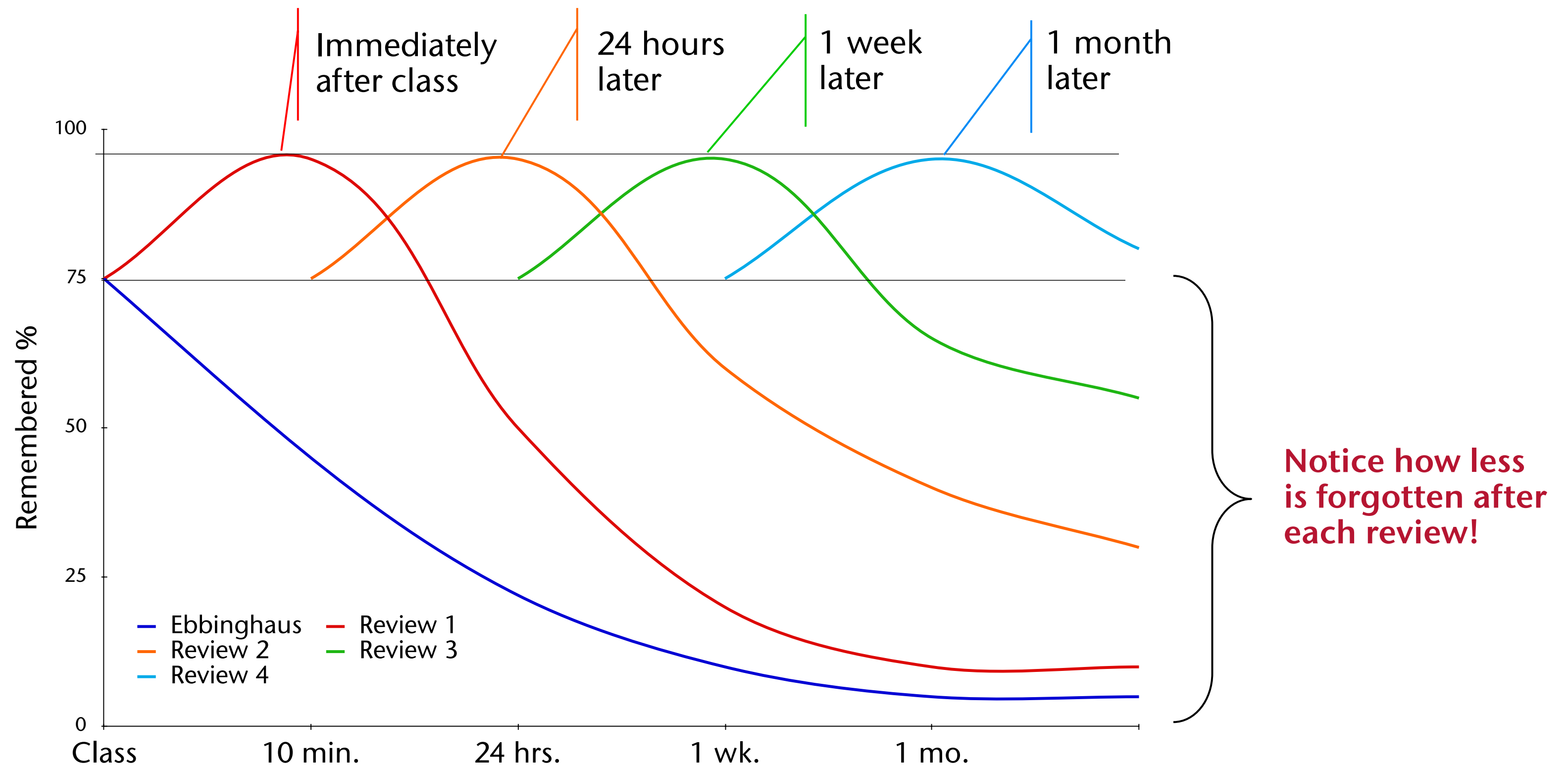


The Ebbinghaus Curve (aka. Forgetting Curve)



[Pillis, Johnson: *First, Do No Harm: Effective, Ineffective and Counterproductive Teaching Methods*. Journal of Higher Education Theory and Practice, Vol. 15(1), 2015.]

Use the “Spacing Effect” (Beat the Ebbinghaus Curve)



Read on Paper (not on Screen!)



[Delgado et al.: *Don't throw away your printed books: A meta-analysis on the effects of reading media on reading comprehension*, 2018]

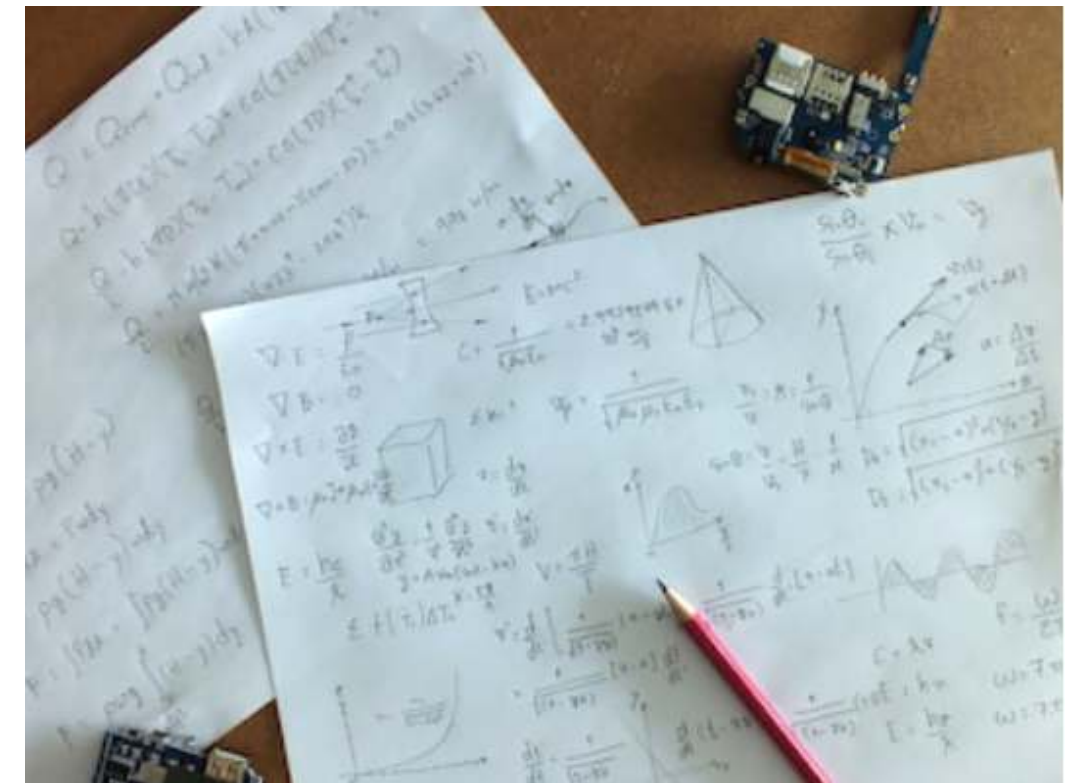
Use the Right Tool for the Right Task!



Pen tablet



Digital paper

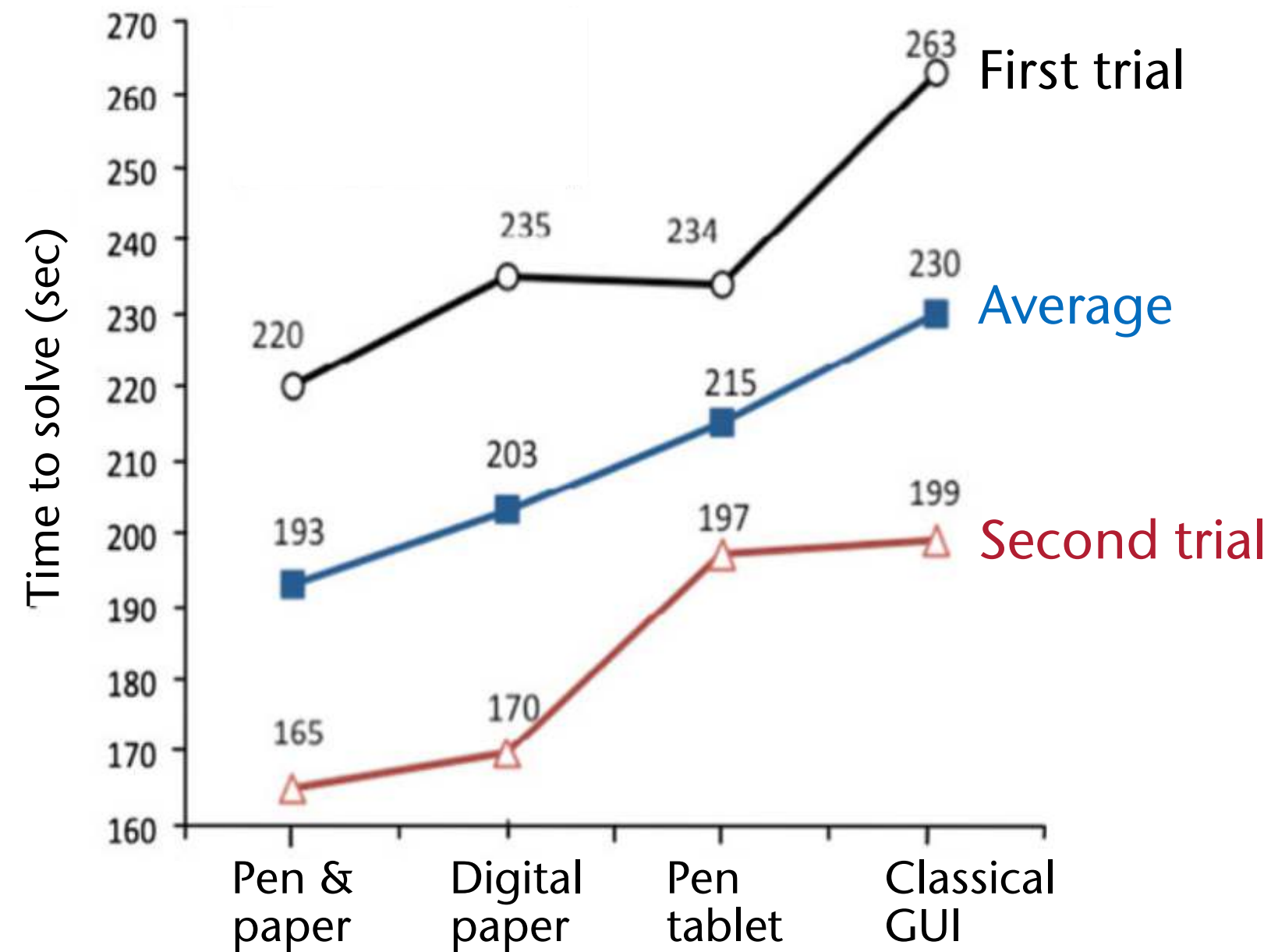


Pen & paper

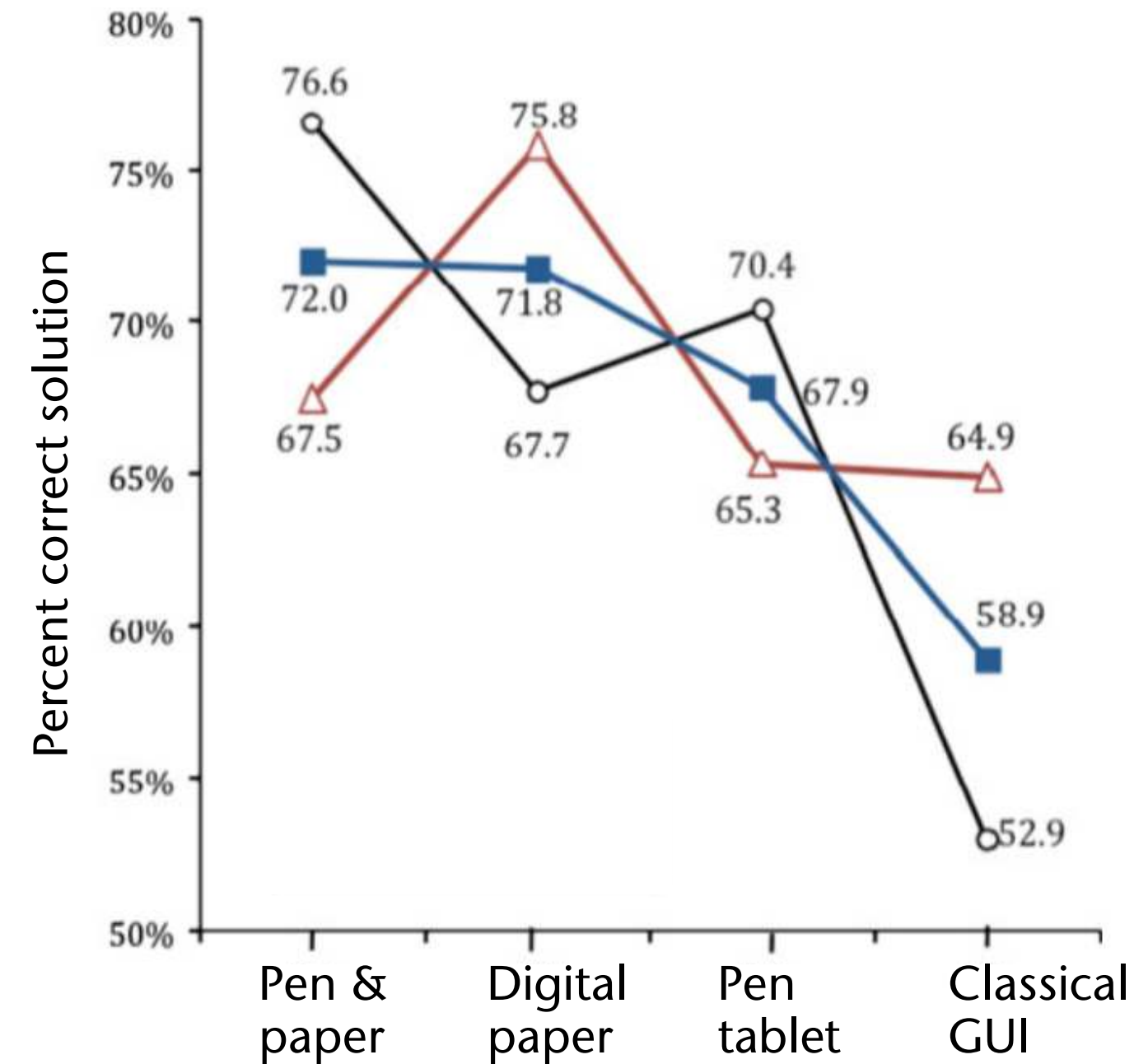
[Oviatt, Cohen: *Toward High-Performance Communications Interfaces for Science Problem Solving.* J Sci Educ Technol (2010) 19:515–531]

Use the Right Tool for the Right Task!

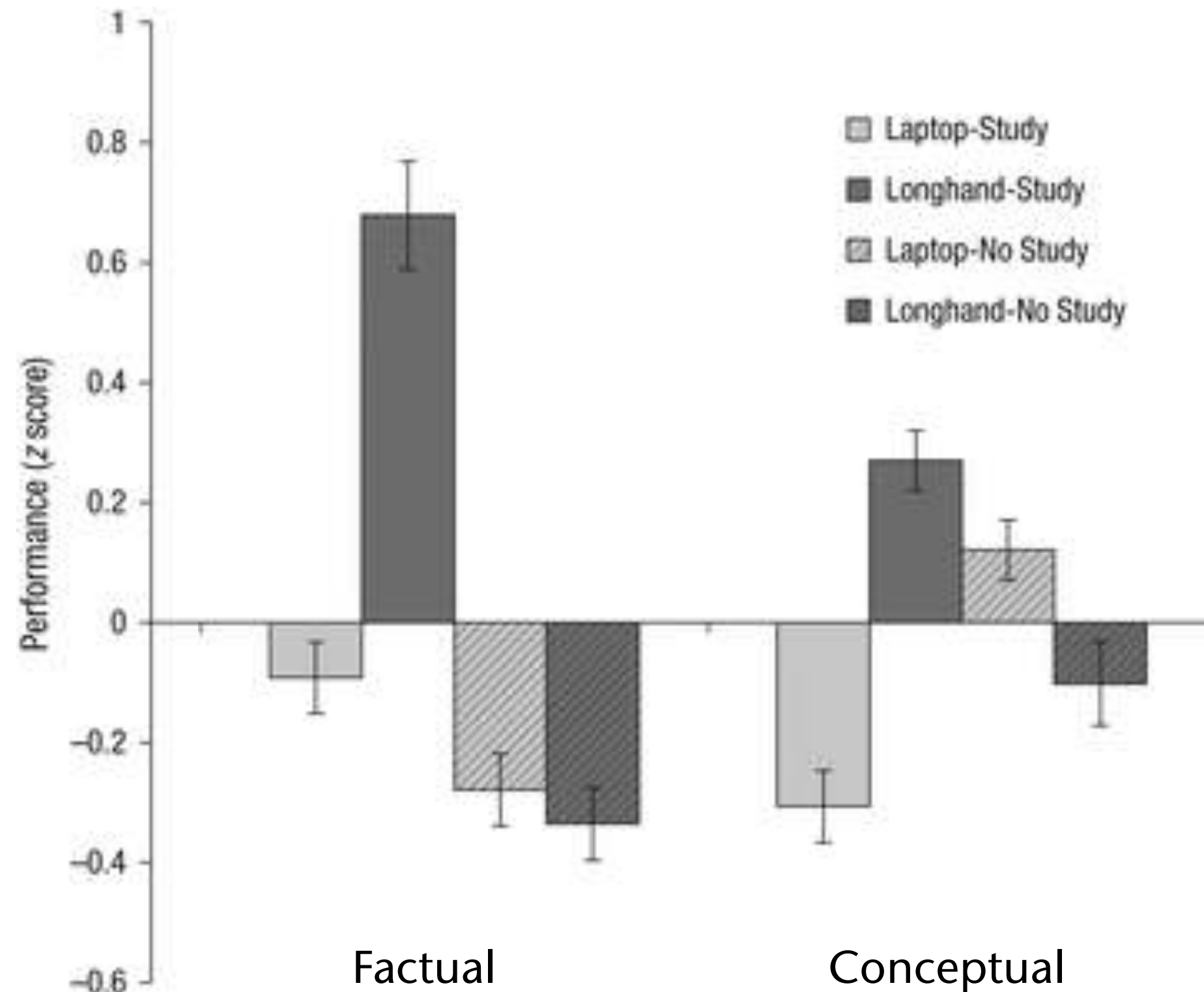
Performance wrt. speed



Performance wrt. errors



Handwriting is Brain-Writing



Procedure:

1. All students attended the same lecture and were asked to take notes
2. After a week, students took a test on the material

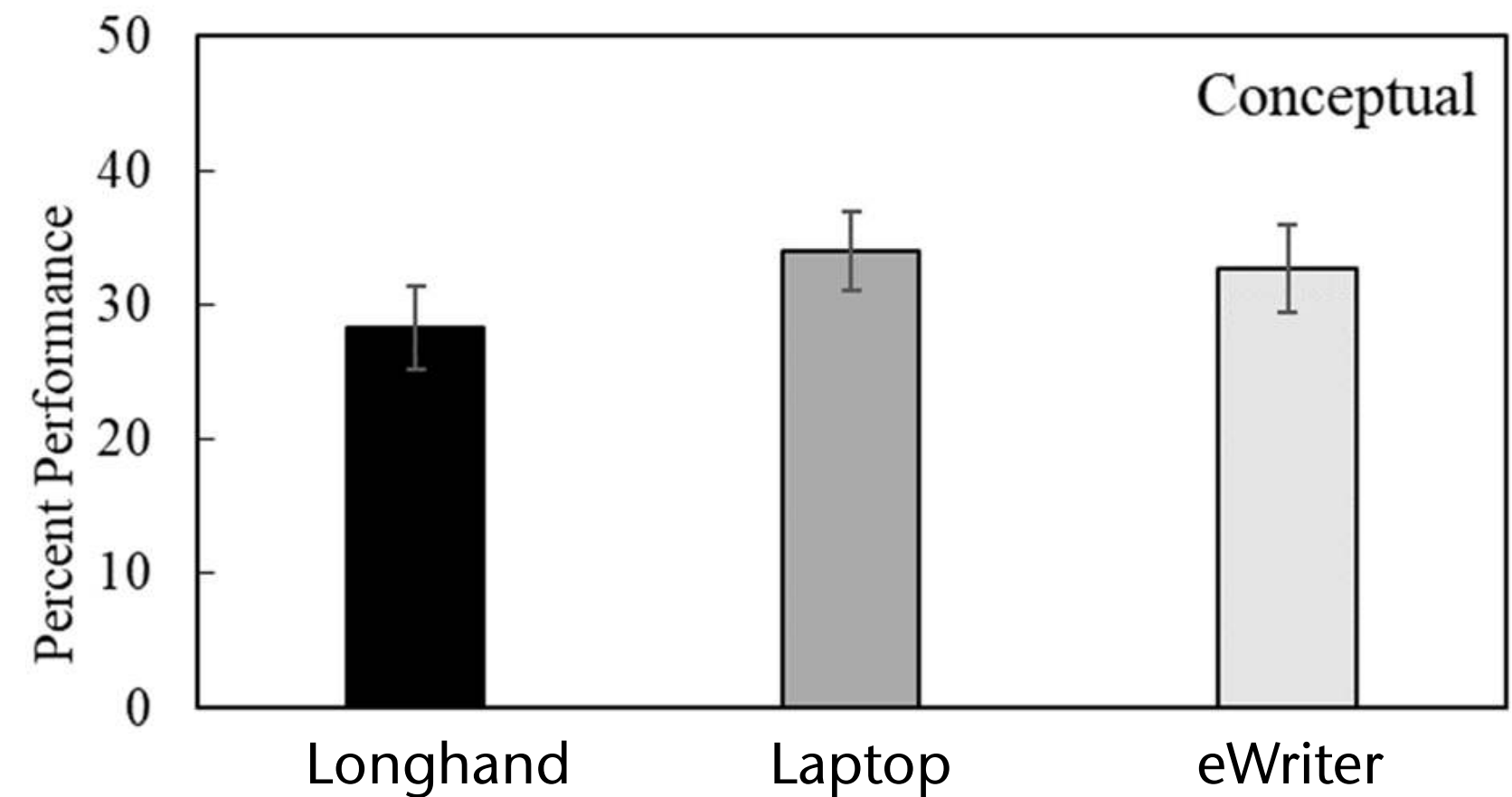
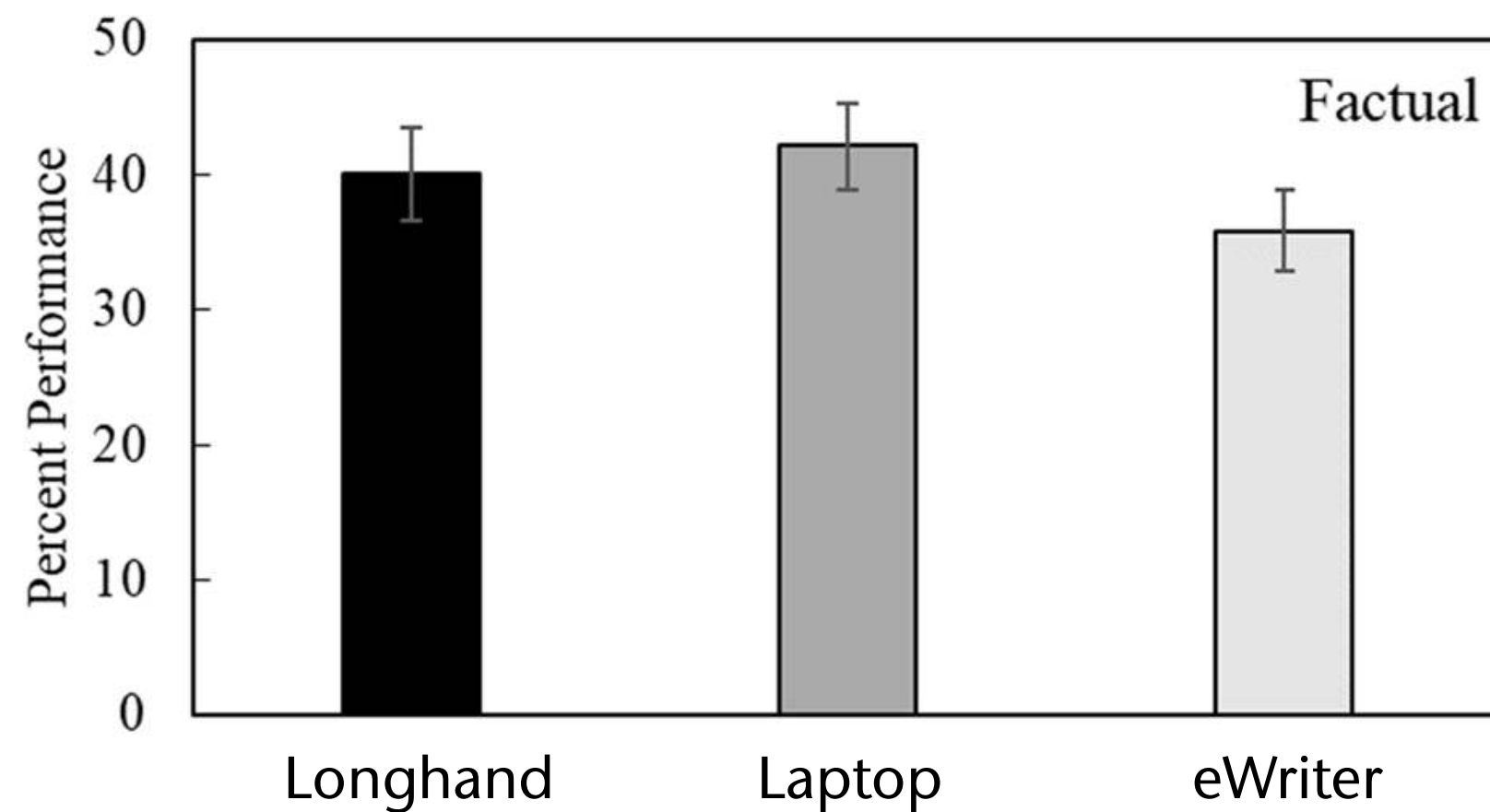
The test asked about factual knowledge as well as conceptual understanding.

- "Laptop" = typed note-taking on laptop
- "Longhand" = handwritten note-taking on paper
- "Study" = students could study their notes before the test
- "No-study" = no opportunity to study their notes

[Pam A. Mueller, Daniel M. Oppenheimer: *The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking*. Psychological Science, 25, 1159–1168, 2014]

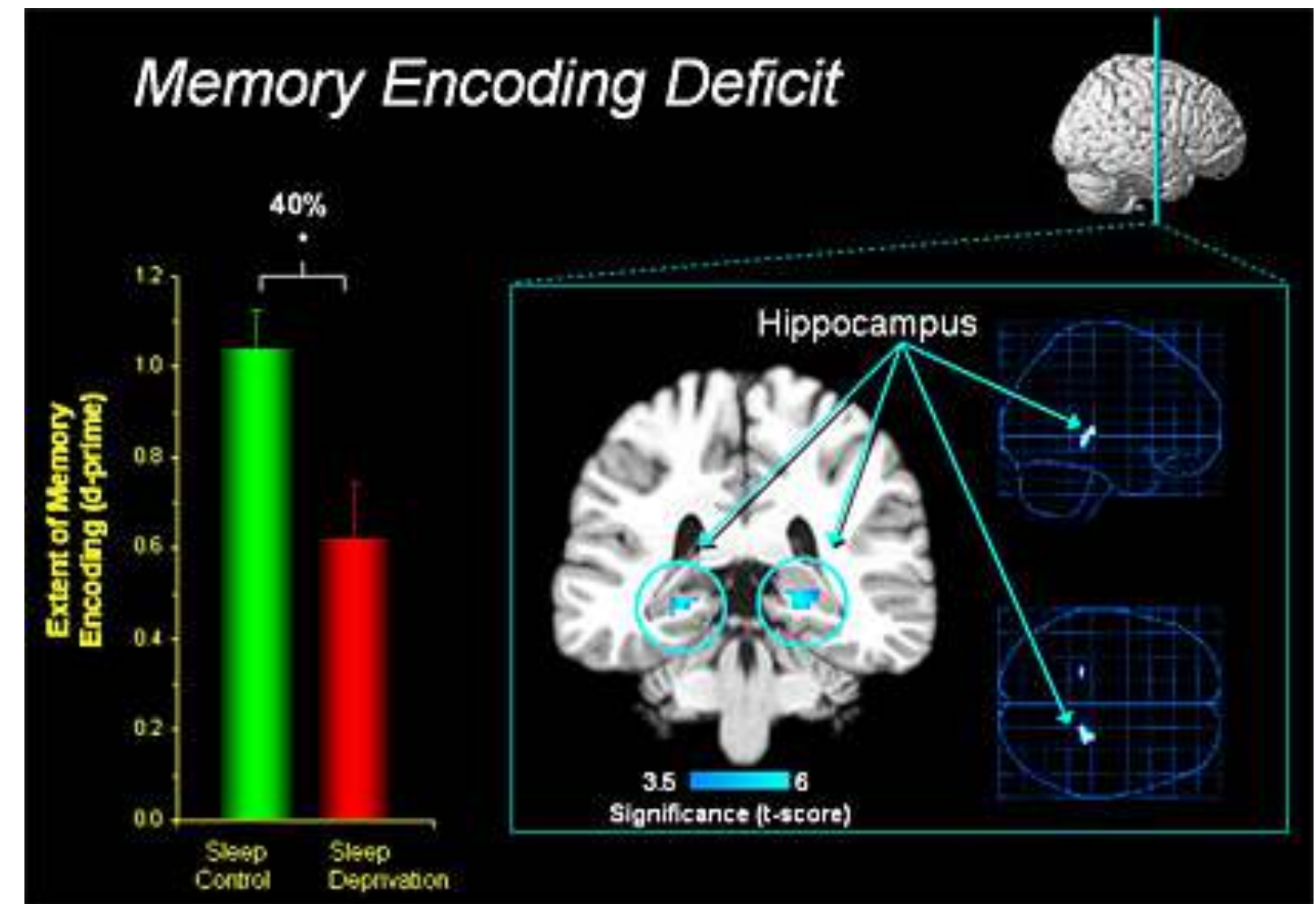
Replication Study

Similar design: lecture, immediate test afterwards, and finally a test after 2 days. Results show the performance in the final test → no significant "winner"



[Morehead, Dunlosky, Rawson: *How Much Mightier Is the Pen than the Keyboard for Note-Taking? A Replication and Extension of Mueller and Oppenheimer*. Educational Psychology Review, September 2019, Volume 31, Issue 3, pp 753–780]

Get Enough Sleep (≥ 8 h on a Regular Basis)



[Matt Walker: *Why We Sleep - Unlocking the Power of Sleep and Dreams*. Scribner, 2018]

Dreams Come to Prepared Minds



Neil Hallinan