

A Comparison of Note-Taking Strategies in a Blended Environment on Module Performance in Brazil

Ana Julia Ferreira, School of Psychology and Neuroscience

Introduction

There is substantial evidence that taking notes by hand results in better performance in exams than taking notes on a computer (i.e. Mueller & Oppenheimer, 2014). This is often attributed to the fact that the former requires greater cognitive effort and therefore enables deeper encoding of information (Mueller & Oppenheimer, 2014). The switch to online learning during the COVID-19 pandemic has brought about a significant number of issues, such as a lack of interaction between students and educators and lack of motivation. There is, however, little to no research on which note taking method would result in the best performance during online learning, which is extremely necessary to ensure a fruitful online education for students during an already difficult time. Further, research has also found that students who watch lectures live tend to get distracted more often (Kim, 2021), which demonstrates the need for further investigation on this topic.



Hypotheses

Hypothesis 1: Taking handwritten notes leads to higher grades compared to typing them

Hypothesis 2: Students who took notes would outperform those who did not, regardless of medium used

Hypothesis 3: Students who took notes verbatim will have worse final grades than those who wrote in their own words

Hypothesis 4: Watching lecturers live will lead students to engage in distracting tasks more frequently

Method

Participants: 114 students at 34 different Brazilian universities participated in the study.

- 49 identified as female and 65 as male.
- 26 studied arts and humanities, 87 science, technology, engineering, or math, and 1 studied other subjects.

Procedure: An online survey of 36 questions was used for data gathering. It asked for information on the mode of teaching and study habits employed by the participants in the modules in which they received their lowest and highest grade in the previous academic semester.

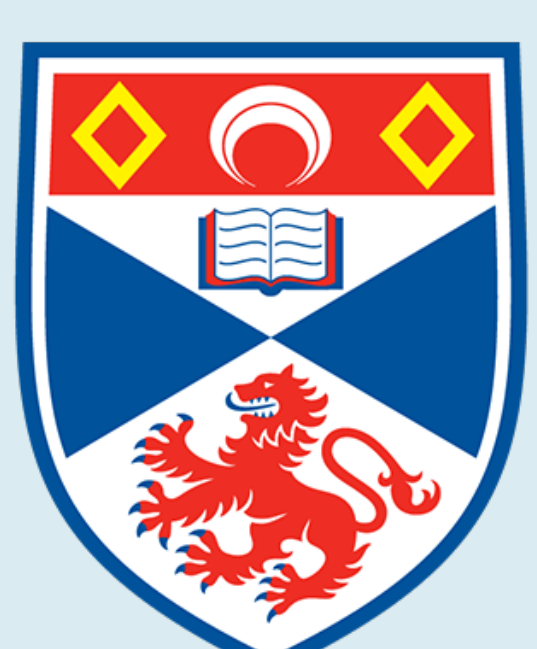
Results & Conclusion

Main findings:

- Note taking medium did not impact module performance;
- The act of taking notes only impacted module performance in the modules where the participants received their lowest grades;
- Taking notes verbatim led to better module performance;
- Watching lectures live versus recorded only impacted module performance in the modules in which the participants received their lowest grades, where they are more likely to be distracted if they do not watch their lectures live.

Conclusion & Recommendations:

What mostly influences module performance is whether students take notes verbatim or in their own words. Students engaging in online classes should therefore take notes in whatever medium suits them, but ensure that those notes are written mostly verbatim to what the lecturer says. It is also recommended to take notes during lectures, especially in classes where one is not doing very well.



University of
St Andrews

I would like to thank my supervisor Paul Gardner, with whom I would not have been able to complete this project, for his continuous support throughout this whole experience. I would also like to extend my gratitude to Isabelle Nguyen for her contributions to this project. Finally, I would like to sincerely thank the Laidlaw foundation and particularly Lord Laidlaw for providing me with this incredible opportunity.

References:

- Mueller, P. A., & Oppenheimer, D. M. (2014). The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking. *Psychological Science*, 25(6), 1159-1168. 10.1177/0956797614524581
- Kim, J. (2021). A Comparison of Synchronous and Asynchronous Modes of Presentation on Module Performance. (unpublished).

Image: "Handwriting vs. Typing: How to Choose the Best Method to Take Notes." Effectiviology, effectiviology.com/handwriting-vs-typing-how-to-take-notes/.

