

Developing Effective Hand-Written Notes in 1st-Year University Classes

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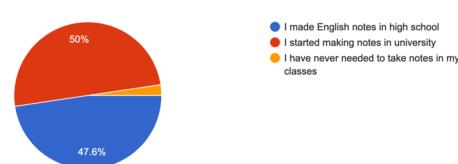


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Starting Points: A Simple Survey

Below is a selection of questions from a survey on note taking given to first-year business administration students. A simple survey such as this can be useful for determining the level of note-taking skills that students are bringing with them into a class. Also, discovering what students will be taking notes for can be useful for choosing what style of note-taking may be best suitable for them. Only a small sample of questions have been included in this poster presentation have been included; thus, there is a discrepancy in the numbering.

2) Did you take English notes in high school, or did you start taking English notes in university?



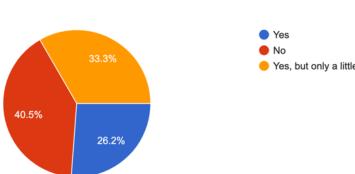
Comment: As the majority of students of students surveyed started making notes in university, It would make sense that some kind of instruction or intervention to improve notes seems necessary.





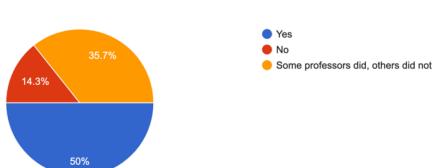
Comment: Knowing the purpose of taking notes can help determine the kinds of notes that may more effectively benefit students. For example, the notes pictured on this poster are of a kind used for sharing research ideas, yet Cornell-style notes may be more suitable when students may want to remember information from lectures (Turnbull, 2018). This line of questioning can also highlight areas that students can develop in their note taking. According to the data above, looking at ways to develop vocabulary, or ways to use notes to synthesize information might be beneficial to the students surveyed.

7) Did your teachers in high school give you instruction on making notes? For example, shown you examples, or given advice?



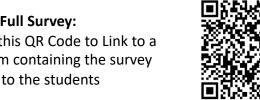
Comment: As can be seen above, advice in making notes at the high school level has been perceived as being limited in scope. This, in combination with other data indicating that students begin making notes in English only after entering university, illustrates a possible need for some instruction on note taking.

8) Did your teachers in university give you instruction on making notes? For example, shown you 42 responses



Comment: Even though university teachers seem to be providing instruction, the students still indicated that this is not the case in all classes. Further research as to what kind of classes do not need to offer note-taking instruction and which do could be interesting for further research.

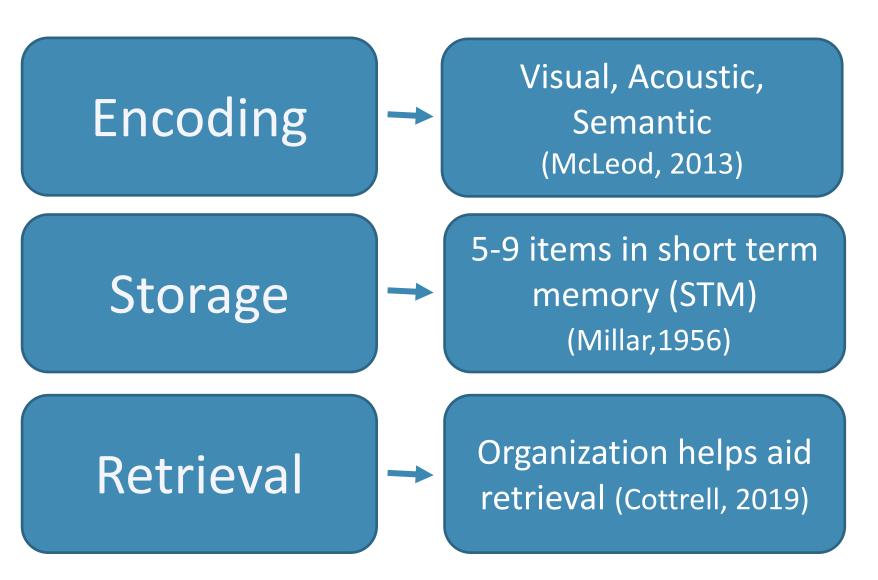
Link to the Full Survey: Please use this QR Code to Link to a Google Form containing the survey Distributed to the students



Teaching Students About the Memory Process

Providing some background information on how the memory process works, and how notes can aid students in remembering key facts may motivate learners to improve their system of note taking. Note taking can be a significant factor to doing well in school when one considers Ebbinghaus's "forgetting curve" and just how quickly students can forget information when they do not have notes to review from. In fact it is possible to forget up to 75% of what was learned in class, just a day or two afterward (Wittman, 2019). Yet, according to a study by Turnbull (2017), few students are taught basic note-taking skills.

Stages of Memory



Teaching Students About Multiple Encoding: A Key Factor for Effective Recall

Use Motor Memory

- Sharing notes verbally is a powerful tool
- Use writing, drawing, and speaking. These fine-muscle movements will be registered by your brain (Cottrell, 2019)

Remember Chunks of Information

- Working memory is limited, only 5-9 pieces of information
- Combine ideas into "chunks" of information For example, create stories around what you take notes on.
- (Cottrell, 2019; McPherson, 2018)

Personalize Notes

- Try to take notes in your own words
- Engage the material through effective abbreviation techniques (Helpful abbreviations, n.d)
- Use Organizational devices (Cottrell, 2019)

Take Hand-Written Notes

- Studies show notes on laptops result in shallower processing
- Notes taken on a computer tend to be more verbatim (Mueller and Oppenheimer, 2014)

Sharing Hand-Written Notes Online: The Individual Learning Log

When classes moved online in the spring of 2020 due to the COVID-19 pandemic, one of the challenges was how students could effectively share there research notes. At In the Law Faculty of Chuo university the idea of an Individual Learning Log was introduced. This file allows students to not only organize their pages of notes in an orderly and easy to understand way, but also gives them space to be able to summarize and comment on ideas, as well as to create new goals. The use of this system allows students to not only develop their own ideas, but also, in working in pairs or groups, facilitates the social process of learning (Dam, 2018)

An Example of an Individual Learning Log from a Global Issues Class

- Students research and make notes on a Global issue topic of their choice
- Students discuss their research using their notes in pairs or small groups
- Time is then given for students to write about and comment on the findings they made for that week of research
- At the end of the 3-4 week research project, students create a short presentation and have a discussion session in groups of 4-6 students in order to learn from each other, and discuss each others' projects

October 8 2021 (research on more specific information/ case studies, etc.)

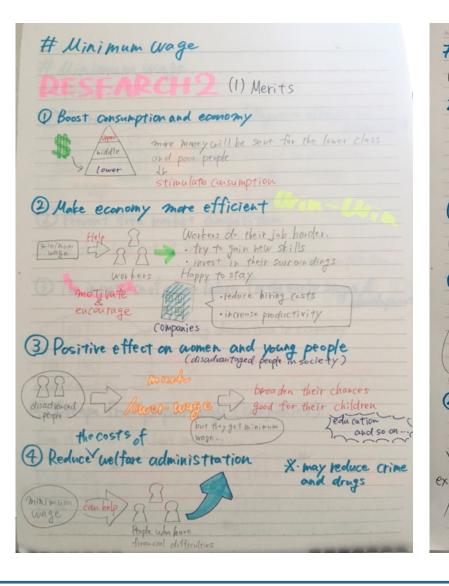
Research Journal 2: (write about what you found this past week)

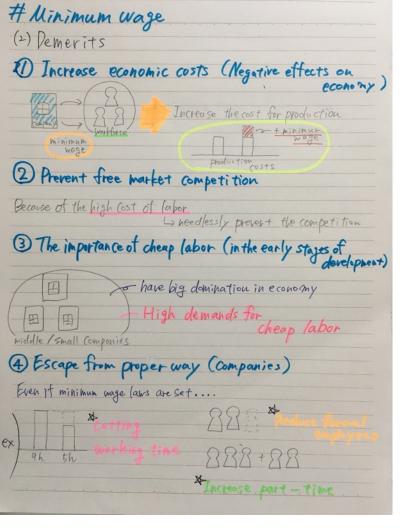
I found that minimum wage laws are so common in the world because I found the fact that most of the countries have minimum wage laws, and especially in developed countries, almost all of the countries have them. Also, I found minimum wage laws have regular rules like the institution that decide the price of minimum wage is of national one, but the detail contents are different from each country to country. Additionally, each country is trying to increase the price of minimum wage, but covid-19 and recession it causes prevents that movement.

Your opinions and thoughts on your findings:

I was surprised that most of the countries around the world have minimum wage laws, it shows minimum wage laws are one of the effective ways for economy, and I would like to know the reasons. Also, I thought the systems of minimum wage law is common, but the systems are different from each country to country, so the system depends on the reasons of the country like the size and poverty. Additionally, it was surprising that the price of minimum wage has been increasing because I thought the price hasn't been changed and poverty has gotten worse, so I want to know why. Your new research goals and questions:

In this research, I found that the detailed contents of minimum wage laws are different from each country to country, but the laws are so common in the world and it shows the laws are beneficial for major countries. However, I've heard that the demerits about the laws and minimum wage law is just a standard that the companies should follow and it couldn't improve poverty, the real purpose of the laws. Therefore, I would like to know the necessities of the laws, so I will research about the merits and demerits of them.





More Than Memory: Note Taking as a **Knowledge Construction Tool**

Of course we may easily think of note-taking as a tool to remember information. As a tool for review so that students can do well of tests. Yet, as seen in the use of the Individual Learning Log as a sharing tool, students can engage with each other and use their notes to collaboratively learn together. Castello and Monereo (2005) argue that notes can be used for not only for collaborative study, but also as a tool for transforming knowledge.

The key here is to avoid writing notes verbatim as a means of only collecting facts, but instead to synthesize, paraphrase, and summarize information, thus creating an individual voice. As Castello and Monereo describe it, "some of the prototypical characteristics of note-taking... are similar to some of the peculiarities of 'mind language', as described by Vygotsky (1981)" (p. 267).

It can be argued that hand-written notes, in allowing for more creative, visual organizational devices, and perhaps in giving more room for personalization, can possibly aid this process of creating an individual voice along with a providing a greater capacity for retention through the use of multiple encoding.

Conclusion

In order to facilitate effective note-taking skills, it is important for students to understand why creating good hand-written notes can be of benefit to them, and indeed, how they can accomplish this task. This involves taking some time to teach students about the memory process and how multiple encoding can play a part in remembering information. It is also beneficial to provide examples of multiple ways of taking notes so that students have good models to learn from. In addition, teaching students the value of using their notes for paraphrasing and summarizing could lead to them being able to construct new ideas about what they are studying. Finally, in actually using the notes they made; for example, in the pair and group discussions, with the Individual Learning Log system, students are able to participate socially in their learning, possibly leading to a more robust and more engaging learning process.

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Appendix



Link to a copy of the Individual Leaning Log: Please use this QR Code to Link to a Google Doc containing the Log

> Link to a copy of a self-evaluation checklist for student notes: Please use this QR Code to Link to a Google Doc containing the checklist

