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Sketchnoting experience of first-year students

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Sketchnoting Experience of First-Year Students
An investigation into the what, where, and how of this way of visual sense-making

Verena Paepcke-Hjeltness, Annaka Ketterer, Ella Kannegiesser, Madeline Keough, Victoria Meeks and Ayla Schiller
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This visual paper follows the sketchnoting experience of a group of first-year honours students as part of a research seminar. The paper shows an overview of sketchnoting, what it is and how to use it, shares examples of lectures and study notes, and visually discusses its benefits and overall lessons and takeaways. It builds on the hypotheses that sketchnoting can regularly positively influence learning and study behaviours and boost academic success while being both creative and productive.

Keywords: sketchnoting; visual learning; visual sense-making
Introduction to Sketchnoting
An exploration into what it is, how to apply it and the benefits of visual learning.

Figure 1. A reflection of what is sketchnoting informed by experience and literature (McGregor, 2018; Perry and Weimar, 2017; Rohde, 2013)
Figure 2. The basics of how to sketchnote (Erb, 2012; Neill, 2020; Rohde, 2013)
Figure 3. Student’s interpretation of the benefits (Dimeo, 2016, Paepcke-Hjeltness & Lu, 2020; Smith, 2012)
Figure 4. Visual synthesis of Shambaugh’s The Cognition Potential of Visual Construction (1995)
Applications of Sketchnoting in the Classroom
Applying visual learning, over the course of 15 weeks students sketchnoted all their lectures in every class. The lecture classes were mostly conducted virtually in an asynchronous format with pre-recorded lectures. Sketchnoted courses ranged from general electives such as mathematics and chemistry and major specific such as sociology and design showing that sketchnoting can be applied to fields from design to STEM.
Figure 6. Mathematics course lecture sketchnotes

Figure 7. Sociology course lecture sketchnotes
Figure 8. Sociology course lecture sketchnotes

Figure 9. Chemistry lecture notes before sketchnoting and after 14 weeks of practice
A Discussion of Sketchnoting in the Digital Space
As part of the visual learning experience the team visually explored the value of sketchnoting based on the weekly sketchnoting practices with a focus on the digital and technology driven space. Taking the recent shift from face-to-face to predominantly virtual class modalities into account. Visualized are the main takeaways:

Figure 10. The value of sketchnoting in the virtual classroom
Based on this learning experience the team continued the discussion on how technology has influenced sketching in general.
Figure 13. Sketching in the digital space, continued

**Major Takeaways**
Reflections on 15 weeks of sketchnoting daily lectures, weekly activities and a live virtual brainstorming.
Figure 14. Everybody has their own handwriting, visual voice and approach to sketchnoting.

There is no right or wrong about sketchnoting, everyone has their own style and visual voice.
Figure 15. Sketchnoting can improve study habits, led to better grades because information is processed through verbal and visual channels. (Caviglioli, 2019; Paivia, 1990)
**Conclusion**

The following sketchnotes are a visual summary of the students’ feedback on their learning, growth and perception of sketchnoting as a learning and teaching methodology addressing the hypotheses that sketchnoting regularly can positively influence learning and study behaviours and boost academic success, while being creative and productive.

![Image 16. Visual hierarchy, framing content and connecting it via frames and placement supports flow and makes important information clear and notes easy to navigate](image16.png)

**Figure 16.** Visual hierarchy, framing content and connecting it via frames and placement supports flow and makes important information clear and notes easy to navigate

![Image 17. Notes were engaging, fun, encouraged to revisit, improved study habits and academic success](image17.png)

**Figure 17.** Notes were engaging, fun, encouraged to revisit, improved study habits and academic success
Figure 18. Sketch and creative confidence increased. More visuals were used, anchoring and connecting content, which led to retaining information better

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Assistant Professor of Industrial Design and Education Director at the Industrial Designers Society of America (IDSA), her research focuses on the diffusion of design thinking and doing practices in design and non-design-oriented disciplines, with an emphasis on exploring visualization as a gateway to learning, comprehension and creative confidence. She plans and facilitates workshops on sketchnoting, design thinking and strategic planning in both academia and industry.

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A senior in Industrial Design, Annaka has been sketchnoting since 2019. During this time, she applied sketchnoting to lecture and study notes as well as for idea exploration, planning and communicating. She has been an active team-member of the sketchnoting research where she develops activities, visuals and facilitate sketchnote sessions.

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