

# The use of sketchnotes in teaching: 6th grade students' experiences of art-based sketchnoting in history lessons

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## Summary

Integrating the arts into education can have various forms, from simple illustrations to enliven an academic subject to more complex forms where the arts are the medium through which learning of the subject and support for learning skills take place (Andrews, 2016; Peppler et al., 2014; Bae, 2013; Eisner, 2002). Sketchnotes can be regarded as a component of integrative learning. Mark Rohde, who is considered to be the pioneer of sketchnoting, explains that they are rich visual notes combining handwritten text, drawings, hand-drawn typography, shapes and visual elements such as arrows, boxes and lines (Rohde, 2013). The use of sketchnotes has been observed to have significant benefits, primarily for storing and recalling information in the memory (Bratash et al., 2020; Fernandes et al., 2018; Hardiman et al., 2014, 2019), but also on orientation in complex and information-rich texts (Altieri, 2017), artistic expression, imagination and confidence (Bratash et al., 2020).

The research question of the present study is to what extent the use of sketchnotes supports the learning process in history lessons and promotes the acquisition of the subject. The study aims to evaluate students' experiences of sketchnoting in history lessons in grade 6 and to draw conclusions about the applicability of this method. The study has been conducted using implementation research principles (Peters et al., 2013). Implementation research involves working in a real-life setting and with a target group directly affected by the research intervention. This study took place in a school environment, and sketchnoting was part of the recap of the history lesson. Peters et al. (2013) recommend assessing the outcome of implementation on the basis of the following factors: acceptability, adoption, appropriateness, feasibility, fidelity, implementation cost, coverage, and sustainability.

The application of sketchnotes in the classroom was carried out by the article's first author (hereafter referred to as the 'teacher-researcher'), who

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included 6th-grade students from three parallel classes in which she taught history. Following the study, students were given a feedback questionnaire on the acceptability and usefulness of sketchnotes. Seventy-seven students (35 boys and 42 girls) answered the questionnaire. Eight students participated in the post-survey interview. In the interviews, students were asked whether sketchnotes helped them to memorise the material better, how they perceived the process of taking visual notes, how time-consuming they found this way of note-taking, and whether they thought sketchnotes were suitable for the learning process.

Before the study and in collaboration with the art teacher, all the students folded a Leporello (a booklet) of 11 pages, with one page for each history lesson. At the beginning of the history course, the teacher-researcher explained what sketchnotes are and how they are done. It was stressed that drawings are not evaluated and that what matters is not the aesthetic aspect of the drawing but rather the meaning of the drawing for the student. At the end of the lesson, the students had 10–15 minutes to make sketchnotes. When, due to COVID-19, the students were moved to distance learning, the making of sketchnotes became a central activity of the study process – the students had to read through the study material independently, and the conceptualisation of what had been read was carried out through sketchnotes.

After using sketchnotes for two months, the students were asked how they liked making the visual notes. The average rating on a 5-point scale out of all the respondents ( $n = 77$ ) was  $M = 4.1$  ( $SD = 1.3$ ). There was no statistically significant difference in the responses of boys and girls. Out of the eight interviewees, seven said they liked making the sketchnotes, one of whom had already used that method for some years. The reasons given for the satisfaction were: pleasant process, good to learn; new and exciting; easier to carry a book of notes than a textbook; a change of pace; satisfaction with their drawings; could relate the textbook text to their own life.

Of the students, 51 (66%) preferred sketchnotes to written notes, 18 (23%) preferred written notes, and 8 (10%) said they had no preference. The majority of students ( $n = 60$ ; 78%) preferred to make sketchnotes at home, 15 (19%) students preferred to make them at school and 2 (3%) students had no preference. The students generally accepted sketchnoting, as all of them used the method in their history lessons and found their own strategy in the course of their work. The internet was often used to check the significance of facts and to find pictures. Chandler (2017) and Altieri (2017) highlight the importance of designing a personal strategy.

The benefits of sketchnotes were observed in better recall of learning content, better attention to detail, development of creativity, the calming effect

of drawing, and development of manual dexterity. In the feedback questionnaire responses and in the interview, the most important benefit that emerged was the retention and easier and faster recall of what was learned through the use of drawings, which has been shown in several previous studies on visually presented information (Bratash et al., 2020; Fernandes et al., 2018; Hardiman et al., 2014, 2019). Still, 10 out of 77 (13%) students responded that sketchnotes did not help them learn the material, which may point to the different ways of memorising. However, this may also indicate that note-taking requires first identifying what information is important to record (Boyle & Joyce, 2019).

The assessment of the acceptability and feasibility of sketchnotes suggests that this way of note-taking could be useful as part of a history course. There is no additional cost, as all you need is paper and pencil. It can, however, support motivation to learn (Mark et al., 2020), as the interviewees' experiences suggest. In common with Peppler et al. (2014), this study found that sketchnoting encourages interaction and collaboration between students. Here, the teacher has an important responsibility to ensure that the presentation of work is friendly and tolerant of differences. It is important to agree on rules in class beforehand on how to express your opinion in a way that makes everyone feel comfortable.

In terms of implementation, the challenge is guidance, especially for distance learning, and time cost. Students rated sketchnotes as more time-consuming than written notes, as also shown by Bratash et al. (2020), and highlighted the desire to use visual and written notes in a combined and flexible way, according to the theme and the time available. The benefits of combining multiple modalities for memorisation have also been highlighted by Van Meter & Garner (2005) in their literature review on learner-generated notes. As making sketchnotes requires more mental effort from students than usual (Borosan, 2018), lessons should be planned in such a way that the student's work has a greater purpose. By the end of this study, each student had developed a book on Ancient Greece, each page of which contained a visual summary of the material covered in class.

The limitations of this study were the small sample size, the involvement of only one teacher and the above-average academic performance of the interviewees. A study by Boyle & Forchell (2014) showed that note-taking is a complex cognitive task, as evidenced by differences between higher and lower-performing students. This study pointed to the need to teach note-taking to a group of students with lower academic performance separately or to provide support for them in this activity.

At the same time, this work provides a good starting point for further research. The qualitative data showed that making sketchnotes can be related

to the enjoyment of drawing and the self-assessment of one's drawing skills. Some students noticed that making sketchnotes improved their visual self-expression and made drawing more enjoyable. Exploring these links could also be of interest from an art education perspective. There is certainly a need to clarify whether and how the use of sketchnotes in learning could benefit students with a lower-than-average academic performance and how to make it easier for students to make sketchnotes into a calming activity that supports emotional regulation. Flexible sketchnotes could be a simple way of supporting young people's well-being in the classroom.

*Keywords:* sketchnotes, arts integration, implementation research, history lesson, student experiences.