

## Attitude of Undergraduate students towards Sketchnoting activity in classroom

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### Abstract

Ensuring and further increasing student engagement in the classroom is a challenging task for the teachers. Teachers need to be creative with the tasks and activities they employ in the classroom so that students pay more attention to the topic being discussed. Greater the involvement of the students, better would be the chances that they learn. This study focused on studying the attitude of students towards sketchnoting activity in the classroom. College going students from Bachelor of Education (B.Ed.), Bachelor of Arts (B.A., Applied Psychology) and Bachelor of Science (B.Sc., Clinical Psychology) courses were included in the sample.

**KEYWORDS:** Sketchnoting, Teaching, Notes, Visual, Engaging.

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## 1. Introduction

In the face of the fourth Industrial revolution, it is imperative that teachers come up with innovative and creative ways to teach in the classroom and focus on 21<sup>st</sup> century life skills and not just on basic content delivery. It is a great challenge for the teachers to ensure that the students are attentive in the classroom as with the strong impact of technology in today's world, students may find the usual classroom atmosphere uninteresting. Catching and sustaining students' attention in the classroom and further enhancing their creative, analytical and critical thinking skills is a challenging task for teachers. Teachers need to be on their toes to look for and experiment with various teaching tools and methodology. Sketchnoting is one such technique that teachers can utilize in the classroom to engage students. Sketchnoting is a technique that involves taking notes in the classroom

using visual note taking. It is a fun and engaging method as it turns doodling into a tool that can help students focus better in the classroom and it also helps deepen their understanding of a concept. Sketchnoting assists the students in organizing ideas visually and it further can help the students remember concepts better.

Tidy, Burnham and Elkington (2022) discuss that the concept of sketchnoting was first introduced by Mike Rohde to capture information in a visual form using a combination of the visual stimulus and words. According to these researchers, in the Higher Education field, a sketchnote can prove useful to summarize key points from the delivered content in the form of a combination of words, simple pictures and graphics. Sketchnotes can help students record main points from a lecture, seminar, journal article or book in a visual manner that can be recalled easily later.

## 2. Aim of the Study

The aim of the present study was to find out the attitude of undergraduate students towards sketchnoting activity in classroom. The focus was to study whether students find the activity more engaging and whether they enjoy using it.

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### 3. Defining the Variable: Sketchnoting

Sketchnoting is defined as a creative form of notetaking that uses a mix of linguistic (words) and nonlinguistic (pictures) representation together (McGregor, 2018). Erb (2012) defines sketchnoting as a graphic method for putting thoughts on paper for taking notes or presenting a design process. Sketchnotes are visually rich as they are created by a mix of handwriting, drawings, hand-lettering, shapes, and visual elements (Schubert, 2022).

Dual coding theory by Paivio (1990) is used in sketchnoting by combining both words and images. According to Paivio, there are two ways one can expand on learned material: verbal associations and imagery. According to this theory, images and verbal information can be used to represent information.

Sketchnoting is being used as a tool in design and engineering classes as an alternative approach to traditional note taking. Hjeltness, Mina and Cyamani (2017) discussed how sketchnoting could be integrated in engineering classes to foster further creative confidence and critical thinking. The researchers have made an attempt to bring sketchnoting into freshman engineering classes with the aim to provide the students with an alternative to traditional note taking in order to foster learning and retention.

Sketchnotes can have an impact on students' learning in an English Language Arts (ELA) classroom. Dale, Crovitz and Bennet (2022) conducted a qualitative study to analyze if sketchnoting helped deepen students' understanding of concepts learned in ELA. Results from students' examination of their own sketchnotes, teachers' examination of the sketchnotes, and interviews were analyzed. The results of this study could help educators understand the benefits of sketchnoting in their classroom.

Tidy, Burnham and Elkington (2022) conducted research on students of a Forensic Science module at Teesside University. They were asked to make sketchnotes on what they learned after each lecture to create a visual revision aid for their upcoming examination. The resulting sketchnotes were shared each week. Students described the task as helpful, fun and creative with approximately half the class stating they would be using this as a future revision process for exams.

Some researchers are also working to develop apps and online games based on sketchnoting. For example, Atashpendar, Grevisse and Rothkugel (2019) have developed a note-taking app based on sketchnoting that helps students have a better learning experience. The app combines semantic annotation with drawing recognition. A web-based game called "Sketch & Learn" was designed by Fernandez and He (2019). It engages learners in playful sketching and helps them build a visual library and it also serves as a dedicated

practice toward sketchnoting. From a pedagogical point of view, the game helps establish a playful learning environment and uses examples to help learners use sketchnoting. Preliminary testing results showed that the game promoted engagement from users, and elicited learning gain.

Gansemer-Topf, Paepcke-Hjeltness, Russel and Schiltz (2021) conducted a study on the students of an undergraduate ecology course and assessed the effectiveness of sketchnoting. They found that students' perceptions of using sketchnoting did not significantly change after being introduced to the tool, but over two-thirds of students found the tool valuable and recommended it to other students.

In the process of teaching students at the university it is important that innovative means and methods of developing visual thinking are utilized. One such method is sketchnoting. Vovk, Koikova and Nikeitseva (2022) conducted a study on first-year students and based on the analysis of the results it was revealed that sketchnoting has a positive effect on the level of development of visual thinking in the students.

Perry and Weimar (2017) discussed how sketchnoting is an activity that K12 students can use effortlessly. They posit that compared to adults, children are more comfortable drawing and being more creative.

### 4. Methodology and Data Collection

33 Undergraduate students from three courses – B.Ed. (Bachelor of Education), B.A. (Bachelor of Arts in Applied Psychology) and B.Sc. (Bachelor of Science in Clinical Psychology) formed the sample for this study.

A questionnaire was prepared to take the feedback from the students after they had used sketchnoting in the classroom. The experts' advice was sought for the questionnaire and the questions were framed and reframed. Out of 19 items, 4 items were rejected and only 15 were short listed for the final draft. Finalized questionnaire for students contained a total of 15 items out of which ten items (Item No. 1, 3, 4, 7, 9, 10, 12, 13, 14, 15) were positive and remaining five items (Item No. 2, 5, 6, 8, 11) were negative statements. Likert five-point scale was used for recording item responses, which range from 'Strongly Agree' and 'Strongly Disagree' having 'Agree', 'Neutral' and 'Disagree' options in between.

### 5. Results and Discussion

The present study aimed at examining the attitude of students towards sketchnoting activity in the classroom. The results obtained showed that the students gave a positive feedback towards preparing sketchnotes in the classroom. Out of the 15 items included in the attitude

scale, feedback towards 14 items proved to be in favour of the sketchnoting activity. The students generally approached the new methodology with positivity. The study also helped provide students an alternative to traditional note taking in order to foster better learning and retention.

At the beginning of the lecture, the students were given a brief about the method of sketchnoting, thereafter they were encouraged to use the same to take notes in the classroom in that particular lecture. Figure 1 shows some evidences for the same. It must be noted that the students were keen on trying sketchnoting in the classroom and thoroughly enjoyed the activity.

The feedback obtained from the students showed positive attitude of the students towards sketchnoting in the classroom. The responses for 14 items were mostly positive and promising as far as the use of sketchnoting in the classroom to engage undergraduate students is concerned. 42.4% of the students claimed that they

were more focused on the content while sketchnoting. This is understandable as sketchnoting is an activity that demands the students' sustained attention when they prepare the notes. 48.5 % students found this technique relaxing and claimed that they were able to engage themselves in the classroom well when using this technique. The act of drawing and doodling is very therapeutic and relaxing for many people and this would definitely help students feel relaxed while they work on their sketchnotes. Also, it gives the students a break from the mundane and helps them have fun in the class. 36.4% students disagreed that they skip main points while sketchnoting sometimes, which further helps add weightage to the fact that sketchnoting is an effective technique for notes-taking in the classroom. 51.5% students disagreed with the item that artistic skills are required for sketchnoting. Sketchnoting doesn't need artistic or creative skills. One doesn't have to be very good at drawing to prepare sketchnotes. One can also just use graphics and doodles while

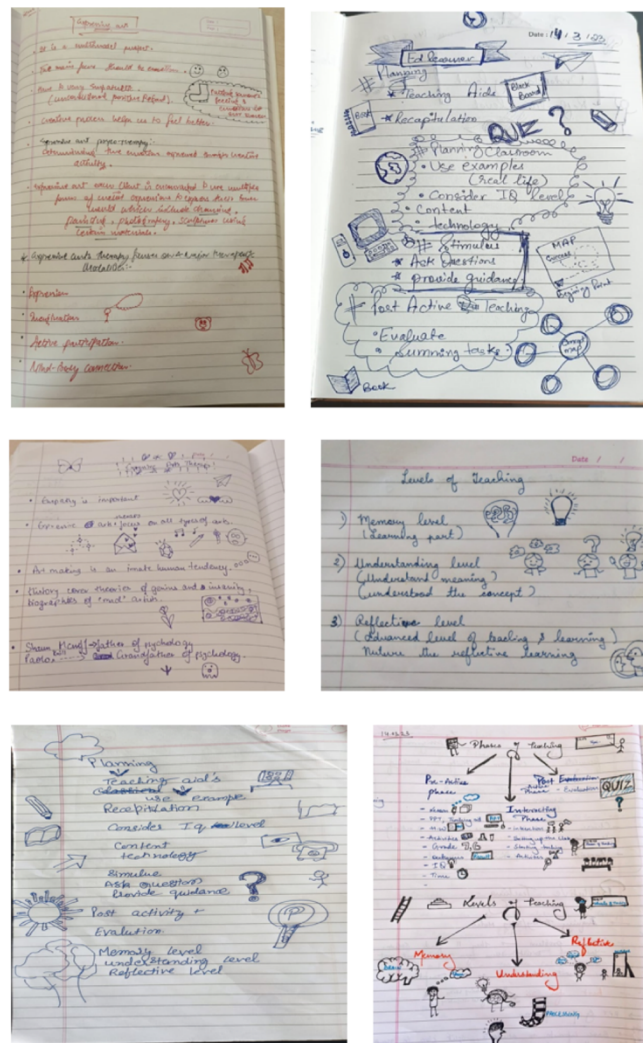


Figure 1 - Evidences of Sketchnoting Activity in the Classroom.

sketchnoting. 49.5% students agreed that this technique breaks monotony. It is a very interesting technique that adds an element of fun in the regular classroom atmosphere. A large percentage (60.6%) disagreed that they would not understand their drawings while revising the content, which helps validate the fact that sketchnotes are useful and one may refer to them later to revise. 43.8% students found this technique very useful, while 48.5% students found taking notes through this technique fun. This shows how sketchnotes can help students as they find it not just a fun technique but also useful. 42.4% students agreed with the item that they would not understand sketchnotes borrowed from their friends, and that makes sense as the pictures and graphics drawn may be somewhat unique and may hold special meaning for the person who drew them. 39.4% students believe that all teachers should use this technique in the classroom. This is helpful information as teachers need to constantly try and look for new and interesting techniques to engage students in the classroom, and sketchnoting is one such technique. 45.5% students would want to use the technique in future, further helping the case for introducing such innovative techniques in the classroom. 45.5% students claimed the sketchnoting helped them learn content better, thus adding more weightage to the utilization of this technique in the classroom so that students understand

the content well. There was one item wherein the students rated sketchnoting negatively- "I found this technique tedious." 28.1% students claimed to find it tedious. However, this is in stark contrast with the responses given by the students in all the other items. The researchers posit that it could be because the students didn't understand the term "tedious" that well, as 48.5 % students had claimed that they found this technique relaxing.

## 6. Conclusion

Keeping in mind the fast-changing scenario of education and the fourth industrial revolution, educators need to be enterprising and they need to hone their creative skills much more in order to engage students in the classroom. Teachers must continue to come up with creative ways to teach. The present study focused on sketchnoting as one such creative way. The study can have various educational implications. In-service and pre-service teachers can be encouraged to use this technique in the classroom as the students are more focused when they use sketchnoting. It helps in better retention of the concepts and is really helpful in case of visual learners. Also, teachers are always struggling with catching and sustaining the students' attention in the classroom, and this technique could

S.No.	Item	Percentage of Students under various Categories of Responses				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	This method helps learn content better	42.4	45.5	12.1	-	-
2	I would like to do more of it in future classes	45.5	45.5	6	3	-
3	I wish all teachers to encourage this technique in their classroom	42.4	39.4	15.2	3	-
4	I enjoy using this technique	45.5	48.5	6	-	-
5	I would not understand sketchnotes borrowed from my friends when I am unable to attend the lecture	12.1	42.4	27.3	12.1	-
6	It is fun taking notes through this technique	42.4	48.5	9.1	-	-
7	I found this technique really useful	37.5	48.3	15.6	3.1	-
8	Sometimes, I do not understand my drawings while revising the content	3.1	12.1	24.2	60.6	-
9	The technique breaks monotony/boredom	39.4	45.5	3	9.1	3
10	This technique requires artistic skills which I do not possess	3.1	12.1	24.2	51.5	9.1
11	I skip main points while sketchnoting sometimes	5	27.3	27.3	36.4	4
12	I am unable to engage myself in the classroom when using this technique	33.3	48.5	12.1	6.1	-
13	I found this technique relaxing	33.3	48.5	15.2	3	-
14	I am more focused on the content while sketchnoting	21.2	42.4	33.3	3.1	-
15	I found this technique very tedious	21.9	28.1	15.5	25	9.4

Table 1 - Percentage Score of Items on Five-point Scale.

help them towards this cause and help break monotony as well. Sketchnoting could also help reduce some stress when the students use this technique in preparation for the exams.

The present study was delimited to Chitkara University, Rajpura, Punjab. Similar studies can be conducted in different geographical locations. The sample size can be increased, and this study can be replicated for larger samples. The tool can be standardized as well for further research. A comparative study on the effect of sketchnoting on different types of learning styles can be conducted. How sketchnoting fosters retention can further be researched. A quantitative research study may be conducted to find out how sketchnoting boosts academic success.

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