AN ANALYSIS OF A COLLABORATIVE DIGITAL STORYTELLING FOR LANGUAGE LEARNING

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Introduction

Digital technology has provided various means for teachers and students to employ a range of modes to describe a concept or a phenomenon. Models, simulations, storytelling, and games can be delivered by the means of technology to make concepts or phenomena more interesting. Digital images, texts, and audio can be integrated and presented in a template or platform.

Digital storytelling is defined as 'the social practice of telling stories" which is done by means of digital technology (Meadows, 2003). Digital storytelling can be expressed in numerous terms such as computer-based narratives, digital essays, and interactive storytelling. Digital storytelling commonly employs the combination of texts, images, recorded audio narration, video or music clips (Robin, 2018). Digital Storytelling Association (2002) explains that storytelling has long existed in the history of mankind. Storytelling has been used to share knowledge, wisdom, knowledge, norms, and values. In the past, storytelling practice in some societies is done orally. Today, digital technology has made storytelling more enjoyable and real since it employs multimodality.

Studies on the impact of digital storytelling on student learning showed that digital storytelling, while may not have direct relationship with academic achievement, is a powerful tool to increase student engagement and cognitive development. Digital storytelling is an excellent tool to integrate course content with learning activities to create more engaging class atmosphere. Creating stories digitally allows learners to practice language in an expressive manner. Students are able to focus less on grammar and technology and more on creating compelling stories (Castaneda, 2013). Some studies also found that digital storytelling improves cognitive development, self-authoring, and identity construction (Davis, 2004; Sadik, 2008).

This study examined collaborative digital storytelling to learn a language. To date, many studies on digital storytelling have focused on individual project. Therefore, this study aims to bridge the gap by emphasizing collaborative projects on digital storytelling.

Literature Review

Digital Storytelling

Digital storytelling can be an appropriate tool to increase student engagement and participation in the classroom. Robin (2008) defined digital storytelling as a tool that

> "… allows computer users to become creative storytellers through the traditional processes of selecting a topic, conducting research, writing a script, and developing an interesting story. This material is then combined with various types of multimedia, including computer-based graphics, recorded audio, computer-generated text, video clips, and music so that it can be played on a computer, uploaded on a web site, or burned on a DVD."

In the past, digital storytelling made use of camera, video, and audio capture devices. Nowadays, the advancement of technology has made it a lot easier and cheaper for students to create stories using the Internet and mobile devices.

The Influence of Digital Storytelling on Learning

In this proposed study, the word storytelling is understood as a medium popular culture that relies on illustrations or images created from panel to panel where each panel has almost identical images, so that will create an image movement when projected. The purpose of storytelling is to facilitate students in understanding, learning, memory, communication and the conclusion of a thing. Findings from Tversky, Morrison, and Betrancourt (2002, p 248) stated that, "The assumption is that graphics can facilitate comprehension, learning, memory, communication and inference "is evidence of the influence of good storytelling products on student learning. Subroto (2005, p.

25) support the above statement by arguing that students would rather see the movie broadcast rather than learning. In the context of learning, Jolly (2003, p.1) says that the use of images as a way of conveying information will improve understanding and the absorbency of something already read. Rieber (1990) also argues that the film storytelling can be an attraction for human strength to master forms media that rely on the skills to visualize.

The literature on teaching English for learners says that teachers should use teaching media that can stimulate imagination and attracts children's attention. One of the media that can be used is the form of a story like that described above. Actually, a story, whether pictorial or not, can be judged enrich the imagination of students and can attract students' attention. However, there is understanding that if a comic can be processed into an animated film then the student will more interested to pay attention to the film as a medium of learning. There technology makes students early enough to be familiar with multimodality, ie perform activities that use images, video, audio, and other media inside the same time. Therefore the storytelling uses some multimodal features then this feature is expected to be able to motivate students to be more interested in the activities learning. In addition, there is an opinion that compared to textbooks, technology multimedia like this animated film can make students more enthusiastic and more like learning activities. In addition, animated picture stories according to Gjedde (2015) will also prepare students to have cognitive skills better in making an understanding or "meaning-making" (page 3). In Another study, Surrah & Mohamed (2015) says students are using a combination images and texts learn more than students who only use text. When a person uses images, actions, and dialogues to understand something, they will better understand the meaning of a word (Gee 2004).

Methodology

Method of data collection and analysis

Data collection

Population and Sample

The population of this study will be freshmen in a private university in Semarang. The participants will be selected based on convenient sampling.

Instruments

This study is quantitative study. The main instruments in this study were questionnaires. The questionnaire consists of three parts. The first part of the questionnaire was used to capture the demography of the participants. It has three question items. The second part of the questionnaire was used to find out participants technology literacy and technology comfort level. It consists of two items. The last part of the questionnaire was used to elicit information about students' perception of the software and their experience in creating digital stories. This part has 28 question items.

Applications overview.

This study focuses on students' attitude towards digital storytelling for English learning. The web-based applications to use in this study will be web-based *Make Beliefs Comix* and *Toon Doo.* The writer will use these two platforms to explore students' experiences in using these two platforms to create stories digitally.

a. Make Beliefs Comix
   Make Beliefs Comix is an online tool that people can use to create comic strips easily. This online tool is easy to use and is very user friendly. Make Beliefs Comix has a lot of options for characters, backgrounds, and many other features that make it easier for anyone to create stories individually or collaboratively. The comic strips that are created can be shared.
b. Toon Doo
   ToonDoo is a great, comic-creating tool that people can use. In Toon Doo, users can create digital books or comic strips. Like Make Beliefs Comix, Toon Doo has rich options for characters, backgrounds, and other features. Users can choose page layout, characters, poses, and facial expressions that suit their stories. In Toon Doo, students can publish their stories online publicly or privately.

Procedure

In this study, participants were taught to create digital storytelling through a workshop. The writer taught the elements of storytelling and the steps to create storyboards. Next, she let students create stories in groups of three. Students had to make stories based on topics given and free topics. After students create their stories, they were given questionnaires to capture students' attitudes towards digital storytelling.

Data analysis

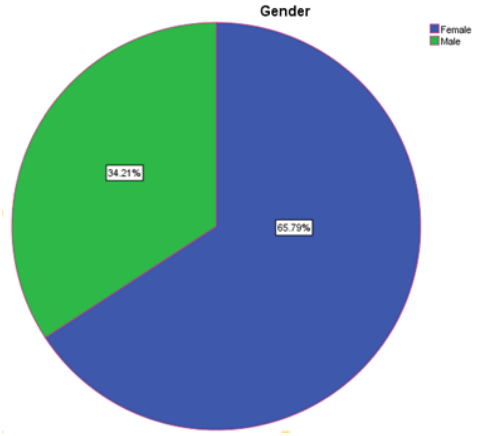
The data collected were analyzed using SPSS to examine the means and the standard deviation (descriptive statistics). The questionnaires used Likert Scale to examine student's attitude towards digital storytelling. The scales used were scored 1 to 4 ranging from the least favorable response to most favorable responses.

Findings and Discussion

This quantitative study intends to find out the best applications for collaborative digital storytelling and students' attitudes towards the collaborative digital storytelling. The questionnaire was the instruments that the writer used to collect data to address the above research questions.

Participants' backgrounds

The participants of this study were students in the Faculty of Language and Arts who took Structure 2 class. The participation in this study was voluntary. 38 out of 65 students filled out the online questionnaire.

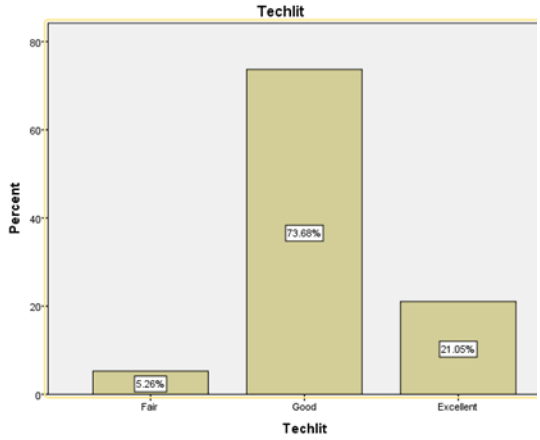


Out of the 38 participants, 25 students were female, while the rest was male students.

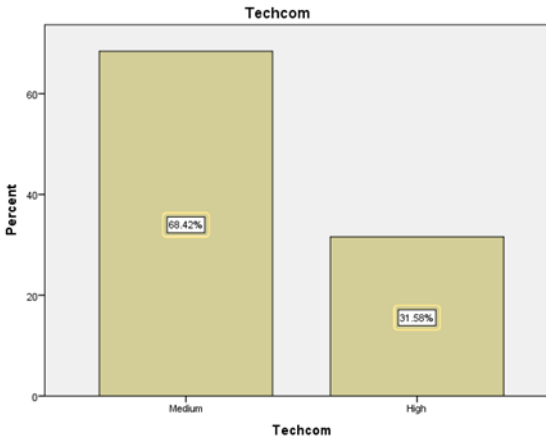
Technology literacy and comfort level

In the second part of the questionnaire, the writer was interested in finding out students' technology literacy and comfort level. In this part, students were asked to self-assess their technology literacy and how comfortable they are in using technology in their daily lives.

The data collected from the questionnaire showed the participants believed they are technologically literate person. Almost two thirds of the participants (73%) were of the opinion that they had good technology literacy. This means that they have the capability to effectively use technology to access, assess, integrate, create and communicate information to enhance the learning process through problem-solving and critical thinking. One fifth of the participants said they had excellent technology literacy.



For comfort level with technology, more than half of them (68%) said they had medium level of comfort with technology. The rest of the participants had a high level of comfort.

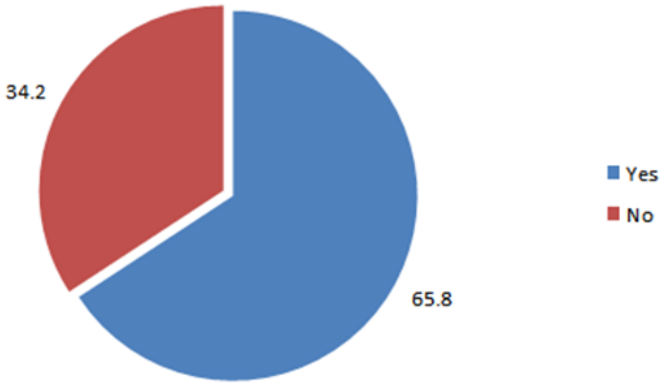


Attitude towards digital storytelling

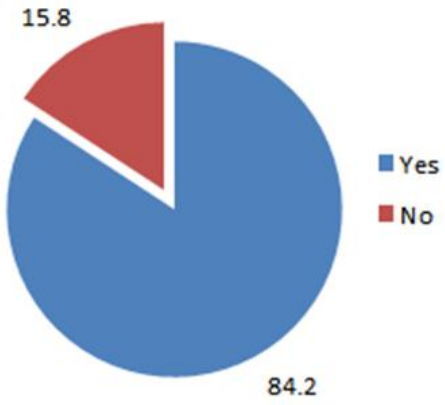
The last part of the questionnaire consisted of question items designed to find out students' attitude towards collaborative digital storytelling project. As explained in Chapter 3, the desktop-based applications used in this study were Makebeliefscomics and ToonDoo. Questions 1 - 3 explored students' familiarity with digital storyboard and which tools they preferred. For questions 1 and 2

students were required to choose Yes or No, whereas in question 3, students had to choose one tool that they preferred.

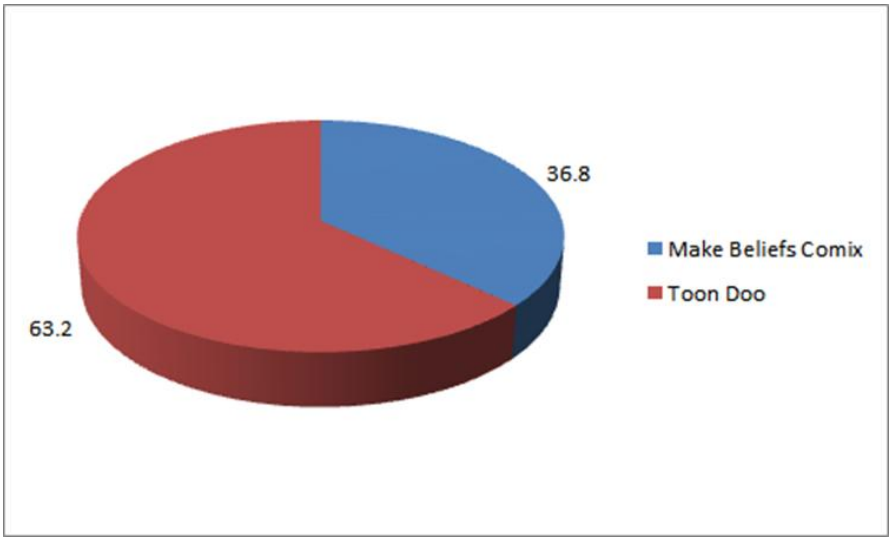
Question item 1 "Are you familiar with digital storytelling?" For question item 1, more than half of the respondents (65.8%) reported that they were familiar with digital storytelling whereas 34.2 % said they were not familiar with it.



For question item 2, students were asked whether they have ever created stories using digital technologies. From the data collected, 84.2% of the respondents have ever created stories using digital technologies. The rest of the respondents, 15.8% said they haven't created stories with digital technologies, yet.



Question item 3 asked which tool students preferred in creating their stories. Two thirds of the students reported that they like ToonDoo, while the rest (36.8%) liked Make Beliefs Comix better.



Question 4 was designed to find out students' interest in creating stories with the digital tools. From the findings, we can see that students were interested in creating stories with digital tools. Out of 39 respondents, 28 students agreed with the statement, 5 students said they strongly agree with the statement and 5 other students said that they were not interested in creating digital storytelling.

When asked whether creating digital storytelling made them happy, more than half of the participants (33 students) agreed that they were happy because they could create stories using digital tools. 3 participants disagreed and only one strongly disagree with the statement.

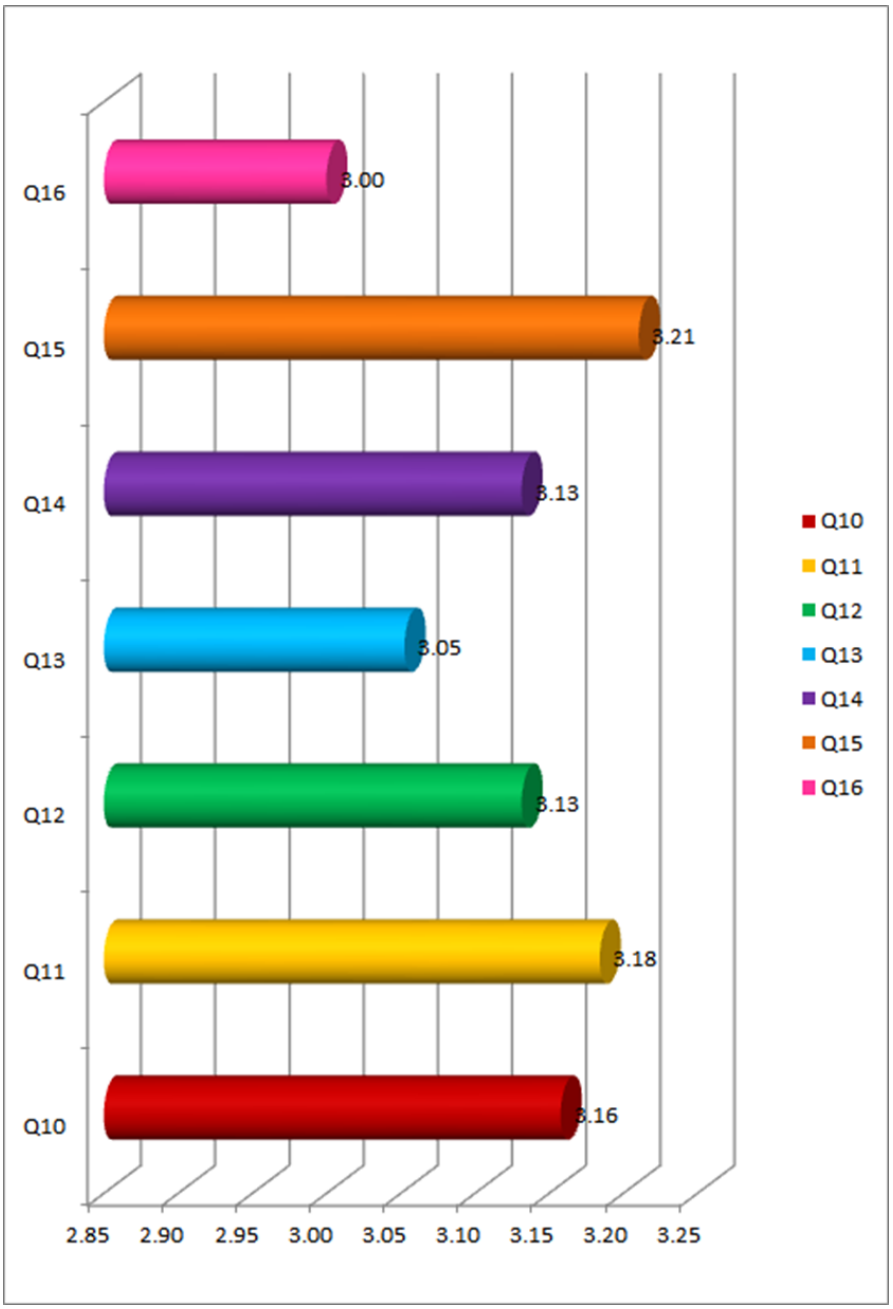
Statements 6, 7, and 9 were related to language skills. In these questions, the writer would like to find out whether students were able to apply their language skills through digital storytelling. Out of the three questions, statement 6 had the highest mean score (3.24). This means that many students agreed that creating digital storytelling help them practice their writing skill. The respondents also said that digital

storytelling allowed them to practice their grammar. This statement had favorable responses. The mean score for this statement was 3.18. They further said they had to pay attention to the grammar rules when they created their story (Statement 9). The mean score of this statement was slightly lower than that of Statements 6 and 7.

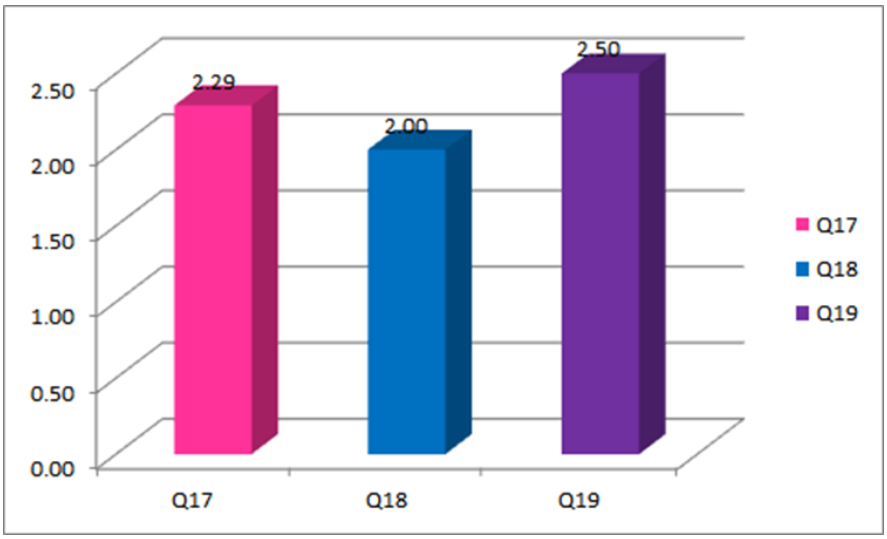
Statements 8 and 10 were intended to elicit students' attitude regarding the project. For statement 8, the participants of this study mostly agreed (97.4%) that one of the strengths of the digital storytelling project was the fact that they were able to show their creativity. The mean score of this statement was 3.37. When asked whether the project was challenging, many students expressed that creating stories using digital tools was challenging. The mean score of statement 10 was 3.16.

Statements 10 - 16 were designed to obtain information about the collaborative nature of the project. In this project, students were asked to work in groups of three. As shown in the next figure, Out of the 7 statements, statement 15 (Working collaboratively help the group create better stories) had the highest mean (3.21). The next statement that had slightly lower mean score than statement 15 was Statement 11 (All team members are engaged in creating a story). The mean score of that statement was 3.18. This means that creating stories through digital tools allowed students to work together. Students reported that every one in the group were willing to contribute their ideas in creating stories (statement 14). From the findings, we can also find that even though students work together well, each member had different workload. The mean score of Statement 3 (Team members have similar workload) was 3.05. Even though the response was still favorable, we can infer that not all members have equal workload. The statement that had the lowest mean score was Statement 16 (Schedule conflicts make it difficult for all team members to meet). For this statement, the mean score was 3. This digital storytelling project was designed to be completed as an out of class project. The students agreed that schedule conflict was one of the challenges that they encounter in order to complete the project. Since this project had to be done in groups, students had to

arrange their time to meet out of class. The findings suggest that schedule conflict made it difficult for them to meet.

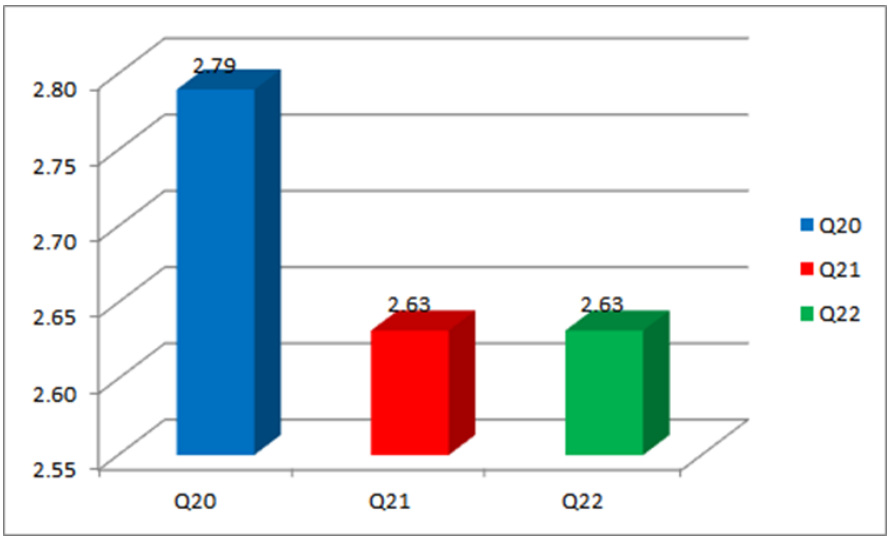


From Statements 17 - 19, the writer would like to find out students' challenges in creating the stories.



In Statement 17 (It took me a long time to finish a digital story), we can see from the figure above that student mostly disagree that they spent a lot of time to finish the story (m=2.29). They did not agree that it took them a lot of efforts to create a story using digital tools. This is shown in the mean score of Statement 18 (m=2). From this finding, we can infer that students did not need a lot of time, nor did they spend a lot of effort. Most students also reported that technology was not a challenge for them. The mean score of Statement 19 was 2.50. This implies that they have enough technology competence to complete their digital storytelling project.

Statements 20 - 22 were designed to find out the strengths of Make Beliefs Comix. From the findings, we can see that the highest mean score (2.79) was for Statement 20 (Make Beliefs Comix is easy to use).



Most students (63%) agreed that the tool is easy to use. 11 students disagreed with the statement. Half of the participants in this study also liked the tools because it has interesting choices of characters and backgrounds for them to create stories (Statements 21 and 22).

Compared with Make Beliefs Comix, students said that Toon Doo, another digital tool to create stories, were better for them (Statements 23 and 24). Almost 90% students said that the Toon Doo was easier to use. In addition, it has better choices of characters. 83% of the students agreed that it has more varied options of characters they can use for their stories.

However, when they were asked whether Make Beliefs Comix was easier to use, the responses were almost similar, although more students (52.7%) would agree that it was easier to use. Many of them (71%) liked Toon Doo because it allowed them to create either books or comics.

The last statement was designed to find out whether they are interested in creating stories using digital tools. Most respondents

agreed (63%) and strongly agreed (13.2%) with the statement. This means that these two digital tools had a lot of potential to be explored.

Conclusions and Suggestions

Conclusions

This study aims to find out the best online tools to create digital stories and students' attitude regarding digital storytelling project. The findings suggest:

1. Toon Doo was viewed as a better platform for digital storytelling since it allows students to create either books or comics
2. Students viewed collaborative digital storytelling as useful for them to practice their grammatical rules and writing skills.
3. Through the collaborative digital storytelling project, students can showcase their creativity.
4. The collaborative nature of the project enable each member to share tasks and responsibilities to create a story.

Suggestions

This study is quantitative in nature. The data collected cannot capture how students actually worked together and what kind of features they liked from these two online forms. The next research should focus on the qualitative method.

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