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## **STUDENTS' PERCEPTIONS OF USING *GOOGLE DOCS* FOR ONLINE COLLABORATIVE WRITING DURING THE PANDEMIC**

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### **Abstract**

The presence of technology in this pandemic is very essential for students to have easy and effective learning. Technology can be the solution in organizing group work, one of the online applications used for online learning is Google Docs. Google Docs provides a platform that can assist online collaborative writing. The research aimed to investigate students' perceptions of using Google Docs for their online collaborative writing as well as Google Docs' benefits and drawbacks for online collaborative writing. The researcher applied a qualitative case study and used two data gathering methods, namely questionnaire and interview. The questionnaire consisted of 16 close-ended questions that were used to gather the data from 62 participants and to select the interviewees. The semi-structured interviews were conducted online and aimed to probe more deeply into the participants' perceptions in using Google Docs for online collaborative writing during the pandemic. The finding showed that the majority of students had positive perceptions of using Google Docs for online collaborative writing. With the support of its features, Google Docs made online collaborative writing simpler and more efficient in terms of student performance during group work, collaboration, and accessibility. Moreover, students' active participation was an important factor in online collaborative writing.

Keywords: Google Docs, online collaborative writing, students' perceptions

### **Introduction**

As a result of the COVID-19 outbreak in Wuhan in late December 2019 (Wu, Chen, & Chan, 2020) and moved to Indonesia in early March 2020 (Susanna, 2020), people were prohibited to gather in one place, or had self-quarantine, in order to prevent the outbreak from spreading further. One of the sectors which has been affected by the self-quarantine policy is the education system. In Indonesia, schools have likewise moved from face-to-face interaction to online contact (fully using technology). Despite the abrupt change in the educational system, the use of technology in this Industrial Revolution 4.0 to fulfill human needs made the learning process easier. Technology has shifted learning habits from old literacy,

which relied on traditional ways of reading and writing, to new literacy, which includes data literacy, technological literacy, and human resource literacy that has an impact on the development of an output that can produce a creative, innovative, and competitive generation that can adapt and create an impact for a better age. (Delipiter, 2019). The integration of technology in offering unlimited learning source for language learners is one example of how technology may improve the educational environment (Bull & Ma in Ahmadi 2018; Dockstader in Ahmadi, 2018). Since this presence of technology allows learners to solve problems independently, the learning process can be transformed into student-centered learning (Warni, Aziz, & Febriawan, 2018).

The existence of technology makes writing, one of the components of literacy and one of the essential abilities in learning English, easier. Distance education, internet access, instructional games, as well as the usage of computers and software, have all been employed to help EFL students learn to write (Chapelle & Jamieson in Mali, 2016; Ross, Morrison, & Lowther, 2010). When undertaking English writing, *Microsoft Office*, *Google Docs*, *Grammarly*, and other online applications are commonly used. Students can use these writing platforms to promote active learning, improve their writing skills, extend their Higher Thinking Order Skill (HOTS), and improve their communication skills (CHOI, 2008). Students' use of online word processors is quite important in their discussion time, especially when they do not have the opportunity to meet each other. The use of word processors in collaborative writing can help students communicate more successfully and conveniently (Cunningham, Rashid, & Le, 2019). According to Mackenzie (2015), students can be active and motivated with their peers to attain a group goal through collaborative learning. *Google Docs*, as one of the online word processors, can be a solution for students doing collaborative writing because it can be accessible by multiple people. The use of *Google Docs* in collaborative writing can reduce student interactions while also swiftly and flexibly assisting students in their writing process, allowing students to engage in outside-of-class activities and discovering their own learning needs (Zhou, Simpson, Domizi, 2012).

There are a few issues that need to be addressed while performing this research. These issues have been transformed into two research questions:

1. What are the students' perceptions of the use of *Google Docs* for the ELESP students' online collaborative writing during the COVID-19 pandemic?
2. What are the possible benefits and drawbacks of using *Google Docs* for the ELESP students' online collaborative writing during the COVID-19 pandemic?

### ***Student's Perception Toward Online Learning***

Because of the recent COVID-19 pandemic, online-based learning is currently used in practically every country. Moreover, students as the digital natives in the Industrial Revolution 4.0 have also been accustomed to using technology to enhance learning both inside and outside the classroom. Students need to have some core competencies which are collaboration, critical thinking and problem-solving skills, digital literacy, and technology in order to face the learning difficulties in this 21<sup>st</sup>-century era. (Cakrawati, 2017; Koohang & Durante, 2003). During the learning activity, students had their perceptions on how the online learning has been undergone, which can be pros or cons. The students' confidence in online learning is a significant factor that influences their perception (Bhagat, Wu, & Chang, 2016).

Some previous studies on students' perceptions of online learning showed both positive and negative results. According to Tichavsky, Hunt, Driscoll, & Jicha (2015), the use of online learning limited the students' engagement with the teacher and diverted their attention. Some "passive online learning", like reading or watching online videos, was ineffective compared to online collaborative learning which allowed students to work with other students and conducted peer work (Cundell & Sheepy, 2018). On the other hand, according to Sudrajat & Purnawarman (2019) and Rahayu (2016), students could benefit from the implementation of online learning using *Google Docs* since it allows them to collaborate by exchanging comments and modifying work together, as well as the students' interaction.

### ***Online Collaborative Writing using Google Docs***

Learning collaboratively with peers was helpful in in-class activities because it allowed students to have meaningful interactions with their peers, which could involve them in the learning process and give them interest in engaging or contributing in the learning activity, as well as help them overcome their anxiety (Yate González, Saenz, Bermeo, & Castañeda Chaves, 2013). Working collaboratively not only led to supportive learning, in which students learnt to respect their peers and collaborate with others, but it also allowed students to learn without the intervention of a teacher (Gödek, 2004). This meant that students' Zone Proximal Development (ZPD) helped them in obtaining more knowledge when learning together in collaboration or learning with help from others (Vygotsky, 1978).



Figure 1. Vygotsky's (1978) Zone of Proximal Development

According to Garrison, Anderson, & Archer (2000); Garrison & Arbaugh (2007), collaboration in online learning occurred not only within the student's social presence, but also within the relationship between social, cognitive, and teaching presence (Community of Inquiry).



Figure 2. Garrison et al. (2000); Garrison & Arbaugh (2007)

Students have mainly depended on the use of technology for studying, but as technology has advanced, students can now receive knowledge through the use of applications on the Internet rather than through traditional learning methods (Pazilah, Hashim, & Yunus, 2019). Technology in online writing applications can help to facilitate and improve online communication and collaboration in the classroom (Alkhataba, Abdul-Hamid, & Bashir, 2018; Brodahl, Hadjerrouit, & Hansen, 2011). As technology has advanced in the 21<sup>st</sup> century, collaboration is now possible not only through online writing but also through newer tools such as discussion boards and online chat rooms (Lawrence & Wah, 2016). Peers can exchange ideas, plan, and observe work collaboratively using online communication (Nykopp, Marttunen, & Erkens, 2018). Grief (2007) found that collaborative writing made writing more supportive and creative because group members constantly shared ideas. In addition to students learning to write from their peers through collaborative writing, using an online writing platform can make collaborative writing more convenient (Abrams, 2019).

One of the most popular online writing applications, *Google Docs*, has an online communication feature that allows for real-time collaboration (Ambrose & Palpanathan, 2017). *Google Docs* is not just for collaboration; it can also assist students in determining their own "level of involvement" (Boyes, 2016). Some previous studies revealed the benefits and drawbacks of using *Google Docs* for online collaborative writing. According to Andrew (2019), the use of *Google Docs* in collaborative writing has some advantages that are related to the ease of use of Google Docs, such as it can be accessed by anyone to collaborate in different places and times. A study from Khalil (2018) found that *Google Docs* was useful for providing feedback to students, which promoted collaborative learning. Students as collaborators would participate more actively in learning activities than students as individuals because students' learning performance was influenced by their cognitive ability and social competence (Liu & Lan, 2016).

Besides the benefits of *Google Docs* for improving students' collaborative writing, the presence of *Google Docs* may be viewed in some studies as contradictory. In contrast to face-to-face learning activities, Krishnan, Cusimano, Wang, & Yim (2018) found it difficult to use *Google Docs* for online collaborative writing activities because there is no feature to track who is actively contributing to

the activity. According to a study conducted in an eighth-grade English Language Arts classroom by Woodrich & Fan (2017), collaborative writing using *Google Docs* was beneficial, but face-to-face writing activities received higher and statistically significant scores than anonymous collaborative writing using *Google Docs*. A finding from Brodahl & Hansen (2014) involving 177 students from age 19-44 mentioned that when there are too many students in one group, the students must deal with not only technical issues such as difficulty logging in and loss of connection, but also with the group members themselves, as the students have difficulty tracking changes in their writing and dealing with the fixed structure or result of the text.

### **Method**

In this research, the researcher employed a qualitative case study to support the journal. The case study thoroughly explores current phenomena in a "real-world setting" by gathering data from interviews, focus groups, and printed media (Jackson, Drummond, & Camara, 2007; Yin, 2018). Only one or a small number of examples are investigated in a case study, and the goal is not to control the variables by employing many methods (Thomas, 2016).

### ***Research Setting and Participant***

The research was conducted in English Language Education Study Program (ELESP) of Sanata Dharma University. The participants of the online questionnaire were 62 students of ELESP Sanata Dharma University in batch 2018 who had experienced learning *Google Docs* in CALL class.

### ***Instrument and Data Gathering Technique***

The researcher employed two methods to gather information: a questionnaire and an interview. The researcher used an online questionnaire to acquire preliminary data. The online survey was created with *Google Form* in order to investigate whether there was a pattern among the participants and to pick four people who would be interviewed about their thoughts on using *Google Docs* for online collaborative writing. Because the questionnaire was provided to the whole ELESP student batch of 2018, the researcher did not apply a sampling procedure. Closed-ended questions with Likert scales ranging from Strongly Disagree, Disagree, Agree, and Strongly Agree were utilized in this study. The participants had to choose their absolute side in each statement based on the questionnaire, which was presented in four Likert scales, because the researcher wanted to get an agree or disagree answer without a neutral option. To address each research topic, the questionnaire was divided into six sub themes generated from the theories. The interview was done online utilizing purposive sampling after the four resourceful interviewees were identified. Due to the COVID-19 pandemic, the online interview was conducted using *Zoom*. The purpose of the online interview was to learn more about the four participants' perceptions on using *Google Docs* for online collaborative writing. The online interview would be semi-structured because the researcher had some prepared questions and might ask extra ones if necessary (Adams, 2015). The researcher utilized open-ended questions to ensure that respondents could freely express their experiences and thoughts in order to get the needed answers (Creswell, 2012).

**Data Analysis Technique**

In the online questionnaire, the researcher used Google Form to create sixteen (16) closed-ended statements. Since *Google Form* provided numerical and percentage results for each statement, the researcher tabulated the numerical and percentage results into descriptive statistics based on the six sub themes and grouped some similar statements under each theme to easily evaluate the overall participants' questionnaire results. The answers of the participants were viewed as percentages and numbers. In the study result, the researcher outlined each of the questionnaire statements one by one, including the numerical and percentage results. Last, a table of 16 questionnaire statements was generated by the researcher to present the data.

The next step was the interview section. Four ELESP students were interviewed; two of the interviewees received the highest overall score and two other interviewees received the lowest overall score from the questionnaire results among other potential interviewees. During the online interview, the researcher used Zoom recording to record the participants' comments and made a note of the most essential points. The researcher transcribed the interview audio into a written text after the interview. The data was then examined based on the respondents' replies under the six sub-themes.

**Findings and Discussion**

In this study, the findings were presented under six sub themes in the questionnaire: (1) Student’s perception of social interaction in collaborative writing, (2) Student’s perception on the indicator of online collaborative writing, (3) Student’s perception on their performance when using *Google Docs* for online collaborative writing, (4) Student’s perception towards *Google Docs*’ features, (5) Student’s perception towards the easiness of communication in *Google Docs*, and (6) Student’s perception towards the accessibility of *Google Docs*.

**Students’ Perceptions of the Use of Google Docs for Online Collaborative Writing**

Table 1. Student's Perception of Social Interaction in Collaborative Writing

No.	Statement	SD (1)	D (2)	A (3)	SA (4)
1.	I prefer learning alone than learning collaboratively in a group.	6.5% 4	37.1% 23	38.7% 24	17.7% 11
2.	Learning collaboratively in a group helps me work faster.	3.2% 2	24.2% 15	41.9% 26	30.6% 19
3.	Learning collaboratively in a group helps me gain more knowledge.	0	6.5% 4	56.5% 35	37.1% 23

(1) In my opinion, learning collaboratively with peers is both a plus and minus (50/50), depending on the people whom I work with. I need both of them (learning

collaboratively with peers and learning individually). I cannot fully depend on my friends and I also cannot 100% learn by myself. (Interviewee 1)

(2) When I have collaborative learning, the work can be distributed among the group members which makes it finished quickly or let's say collaborative working can shorten the working time. By having collaborative learning, I can also exchange ideas with other group members and I can get new insights from them too. (Interviewee 4)

(3) If I may compare between learning alone and learning collaboratively, it is easier to adjust the time when I am learning alone. However when it comes to developing ideas, learning collaboratively in peers is more comfortable because besides each of the group members can share their own ideas, we can know what should be improved from each member's ideas. There will be lots of suggestions and critiques which help us to make new and better ideas. (Interviewee 2)

Statement number one revealed that twenty-six (26) students (41.9%) chose "Agree," implying that the presence of collaborative learning speeds up their work. The second statement found that 35 students (56.5%) "Agree" that learning cooperatively in a group helps them get more knowledge. Students can obtain more knowledge by sharing ideas or opinions, as well as critiques or suggestions, among group members when they learn collaboratively. This was in line with Vygotsky's (1978) thesis that studying in collaboration with peers helped students gain more knowledge than learning on their own. Furthermore, learning collaboratively with peers sped up the work because it was completed in collaboration with other group members, and each student was responsible for completing the same task.

Table 2. Student's Perception on the Indicators of Online Collaborative Writing

No.	Statement	SD (1)	D (2)	A (3)	SA (4)
1.	I need to have critical-thinking and problem-solving skills in order to write collaboratively with other peers.	0	1.6%	45.2%	53.2%
			1	28	33
2.	The presence of group members is the most important thing in online collaborative writing.	0	6.5%	27.4%	66.1%
			4	17	41
3.	I have to be digital literate in order to work collaboratively with other peers.	0	1.6%	41.9%	56.5%
			1	26	35
4.	I still need the presence of a lecturer to observe my work in online collaborative writing with my peers.	4.8%	25.8%	43.5%	25.8%
		3	16	27	16

(1) Having online collaborative learning quite limits the things that need to be done. For example, recently when I had to make a video in a group, it was quite hard to make it as there were things that must be done offline. We have to think of other possibilities that we can do to design a new concept that previously should be done

offline but now it must be done online so that the project can be done successfully. (Interviewee 3)

(2) My technology and digital literacy was improved. In senior high level, I hadn't used any online writing applications, the group work was still done traditionally by meeting face-to-face with the group members. After I have enrolled in PBI, specifically after I got CALL class, I know that there is an online writing application called *Google Docs* which can be used for individual writing or collaborative writing. (Interviewee 4)

(3) Social presence is the important thing as I think that communication is the key point to make the group work successfully. I have a story from my friend's group. There were four members in their group, let's say A, B, C, and D. A, B, and C had been accustomed to use *Google Docs* and had already known what to do while D was passive and D rarely joined the discussion on the *WhatsApp* group. If D had any difficulties and D didn't communicate with the group, other members wouldn't know it and they couldn't help D, right? D might hinder the group work if it turns out, D is having difficulties. The level of cognitivity in each person is different and I don't mind if I happen in a group with someone whose cognitive level is not that good. However, I do emphasize the communication and their willingness to do the job. If they find difficulties, just directly ask on the *WhatsApp* group. (Interviewee 2)

(4) I think that teaching presence is not really important. Sometimes I need the presence of a lecturer only to ask about the group work's progress. (Interviewee 4)

Thirty-three (33) students (53.2%) answered "Strongly Agree" for statement number seven, confirming that critical-thinking and problem-solving skills are required in order to write collaboratively with peers. In statement number 10, which was about the importance of group members' presence in collaborative writing, forty (40) students (66.1%) chose "Strongly Agree." Thirty-five (35) students (56.5%) agreed that students need to be digitally literate in order to participate in online collaborative writing. However, twenty-seven (27) students (43.5%) "Agreed" that lecturers should still be present to observe the group's work in the online collaborative writing.

When it came to online collaborative writing, the most important point that every group member had to have was their social presence. The presence of each group member was essential, as the project would not operate smoothly if one or more individuals were absent, especially once the job distribution had been distributed to each group member. On the other hand, students still needed the presence of teacher when having online collaborative writing. The teaching presence was only as the facilitator or observer. These findings were in accordance with the Community of Inquiry model proposed by Garrison et al. (2000) and Garrison & Arbaugh (2007), which said that online collaborative learning was achieved by combining social, cognitive, and teaching presence.



***The Benefits and Drawbacks of Using Google Docs for Online Collaborative Writing***

Table 3. Student’s Perception of Their Performance when Using *Google Docs* for Online Collaborative Writing

No.	Statement	SD (1)	D (2)	A (3)	SA (4)
1.	My group work can be done faster and more efficiently using <i>Google Docs</i> .	0	12.9% 8	59.7% 37	27.4% 17
2.	I participate more actively with my peers when having online collaborative writing using <i>Google Docs</i> than in face-to-face group work.	12.9% 8	46.8% 29	27.4% 17	12.9% 8

(1) In my opinion, *Google Docs* can also be used when we have offline collaborative writing so that each of the group members can have a real-time editing without compiling works from each member. It will make the work become faster and more efficient. (Interviewee 3)

(2) When I use *Google Docs* for online collaborative writing, I have an opportunity to write anything and say any ideas freely as sometimes when having offline collaborative writing, I am quite shy to express my opinion with others. (Interviewee 4)

In response to statement number one, thirty-seven (37) students (59.7%) “Agreed” that their group task was completed swiftly and efficiently by using *Google Docs*. Utilizing *Google Docs* for online collaborative writing saved students’ time because they could write cooperatively at the same time even though they did not meet one another in person. As a result, students thought they could readily exchange ideas when utilizing *Google Docs* for online collaborative writing because it could be accessible anywhere and at any time by anyone who was invited to participate in the writing using *Google Docs*. This was in line with the findings of a previous study by Rahayu (2016) and Sudrajat & Purnawarman (2019), who showed that using *Google Docs* in the classroom project enabled students to work collaboratively by allowing them to readily communicate ideas and modify their writing with other group members. For the statement "I participate more actively with my peers when having online collaborative writing using *Google Docs* than in face-to-face group work," twenty-nine (29) students (46.8%) chose "Disagree". This finding was not in accordance with the previous study by Liu and Lan (2016) which stated that using *Google Docs* for students' online collaborative writing helped them be more involved in group work. When it came to online collaborative writing, how involved students were relied on the person.

Table 4. Student’s Perception towards *Google Docs*’ Features

No.	Statement	SD (1)	D (2)	A (3)	SA (4)
1.	My group work is made easier by the help of <i>Google Docs</i> ’ features.	0	6.5%	61.3%	32.3%
			4	38	20
2.	I have difficulties in tracking other peers’ work when having online collaborative writing using <i>Google Docs</i> .	11.3%	48.4%	30.6%	9.7%
		7	30	19	6

(1) *Google Docs* already has enough to support basic working which doesn’t require us to make graphics, 3D models, etc. The spelling and grammar check feature are very helpful. It makes online collaboration easier. Another good thing is when the work has been done and we need to keep it private, *Google Docs* has a feature to make it inaccessible to anyone who is not on the list of accessing the work and it is very effective and safe. In my experience when I wrote a script for Drama class, my group members were sometimes confused about whether we used correct grammar or not. *Google Docs* showed us the grammatical or spelling mistakes by giving the red underlining and it is very beneficial as the “reminder” for us to be discussed in the group work. (Interviewee 1)

(2) When each of the group members have written something, I can track the progress in *Google Docs* as there is a feature to know what changes have been made by my peers. *Google Docs* helps me in terms of grammar. It provided spelling and grammar features and I also can add other grammar check applications, like *Grammarly*, on the *Google Docs*. (Interviewee 2)

Thirty-eight (38) students (61.3%) “Agreed” that using *Google Docs*’ features made their group work easier, while thirty (30) students (48.4%) “Disagreed” that tracking their progress during online collaborative writing using *Google Docs* was difficult. The most used feature in *Google Docs* was grammar and spelling check and progress tracking features. Students’ writing process with their peers was facilitated by the grammar and spelling check feature, which checked students’ grammatical and spelling errors so that they could directly discuss the issues and try to offer the correct content when having online collaborative writing. By using a progress tracking feature, students could see who made the modifications, what kind of modifications were made, and when the changes were made (including the day, date, and time) from the first time the writing was done until the present version of the writing. This was not in accordance with the findings from Brodahl & Hansen (2014) and Krishnan et al. (2018) as the study found that the use of *Google Docs* for online collaborative writing was viewed negatively by students. Students found it challenging to use *Google Docs* since they could not trace the changes made by others in writing, so they did not know who was actively contributing and who was not.

Table 5. Student’s Perception towards the Easiness of Communication in *Google Docs*

No.	Statement	SD (1)	D (2)	A (3)	SA (4)
1.	My peers and I have a good online discussion using <i>Google Docs</i> .	1.6%	19.4%	51.6%	27.4%
		1	12	32	17
2.	I can receive feedback from my peers easier when having online collaborative writing using <i>Google Docs</i> .	0	14.5%	53.2%	32.3%
			9	33	20

(1) When my group members did online group work, it was hard, right, when we directly wrote anything in *Google Docs*? So sometimes we communicate using *Google Docs* and it becomes the substitution of *WhatsApp* indirectly. As a result, my group members usually use *Google Meet* to discuss things that we need to work on and after that, we then write what we have discussed on *Google Docs*. However, if other group members can’t access applications for direct communication, like *Google Meet*. Comment feature can help my group members to have direct communication through the comments put on others’ work or writing so that they can know what’s wrong with what they have written or what needs to be added in their writing. (Interviewee 1)

(2) The feedback can also be given easily by using the comment feature as it allows us to write any comment on the intended part. It helps me to know what’s wrong with my writing. (Interviewee 2)

Thirty-two (32) students (51.6%) “agreed” that their online discussion utilizing *Google Docs* was productive. When each of the group members had acquired their job, the existence of *Google Docs* was sufficient for supporting them in online collaborative writing because it had a chat box and comment features comparable to those seen in other online chatting apps. Students could have a textual discussion with other members while writing content on *Google Docs* using the chat tool, however it could only be used to deliver text and not to share things like photographs, voice recorder, and so on. In the statement "I can receive feedback from my peers easier when having online collaborative writing using *Google Docs*," thirty-three (33) students (53.2%) chose Agree. Students could offer suggestions, critiques, or modifications to other members' writing while using the comment tool. This was in line with the findings of a previous study by Khalil (2018), who discovered that by using *Google Docs*, students' writing may be helped because they could readily obtain comments from other group members, encouraging each group member to participate in online collaborative writing.

Table 6. Student’s Perception towards the Accessibility of *Google Docs*

No.	Statement	SD (1)	D (2)	A (3)	SA (4)
1.	I have difficulties in fixing the group work’s result when having online collaborative writing using <i>Google Docs</i> .	16.1% 10	50% 31	29% 28	4.8% 3
2.	<i>Google Docs</i> can be accessed easily by all of my group members.	0	1.6% 1	32.3% 20	66.1% 41
3.	I do not have any trouble every time I access <i>Google Docs</i> for online collaborative writing.	0	9.7% 6	37.1% 23	53.2% 33

(1) Before I knew *Google Docs*, there would be so many files sent in *WhatsApp* by my group members each time they have revised the work and it is hard for us to know which one is the fixed work. While in *Google Docs*, we can work together at the same time and I think it is very effective in this pandemic situation. We can know the fixed work as we only work in one sheet. (Interviewee 1)

(2) I only need to use 1 link to access *Google Docs* which is more efficient compared to other offline writing applications when it is for online collaborative writing. We also don’t need to waste our time in installing any application as *Google Docs* can be accessed online, without installing anything. In contrast, *Google Docs* needs to be connected to the internet whenever we write something so that it will be automatically saved. When the internet connection is suddenly lost, the progress that has been made will be wasted. (Interviewee 4)

In the statement "I have difficulties in fixing the group work's result when having online collaborative writing using Google Docs," thirty-one (31) students (50%) chose "Disagree," indicating that there were no significant issues among students when they had to fix their work in online collaborative writing using *Google Docs*. Because *Google Docs* could be viewed via a single URL, no one in the group had to send several files, as they did with *Microsoft Word*. Students admitted that fixing the group work was not difficult because they could work on one sheet, which made it easier to monitor which version was the mended or the most recent. This result contradicted a prior study by Brodahl & Hansen (2014), who showed that when students used Google Docs for online collaborative writing, they had trouble resolving the text structure or the project's result when there were too many group members. There were forty-one (41) students (66.1%) who answered “Strongly Agree” as well as thirty-three (33) students (53.2%) chose “Strongly Agree”, indicating that all group members could easily access the group work on *Google Docs* and they did not find any trouble every time they access *Google Docs*. Students' collaborative writing could be done more easily with *Google Docs* because it could be accessed online, allowing all group members to write at the same time and receive a real-time writing update even if they did not

meet in person. *Google Docs* could also be opened on many devices by using the same *Google* account. It was in accordance with the findings of Andrew's (2019) earlier study, which indicated that anyone in the group or other people could easily access *Google Docs* for online collaborative writing without regard to time or location.

### Conclusion

The objective of this study was to know students' perceptions of using *Google Docs* for online collaborative writing. The majority of students had positive attitudes about using *Google Docs* for online collaborative writing, according to the results. Students believed that *Google Docs* aided their online collaborative writing, particularly during the pandemic when they were unable to meet in person. The existence of *Google Docs* for online collaborative writing aided students' performance since they could collaborate anytime and anywhere using only one online program, making their working time more effective and convenient. The features found in *Google Docs* aimed to help students in having online collaborative writing. Students' interaction also can still occur inside *Google Docs*, due to the chat box and comment features, which allow students to have written conversation with other group members and provide comments.

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