ENGAGING STUDENT TEACHERS IN HYBRID COLLABORATIVE WRITING CLASS

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Abstract
Google Docs is widely researched for its effect on students’ writing accuracy. However, previous studies have not discussed its effects on student teachers’ achievement and the engagement in hybrid collaborative writing class. The purpose of this study is to fill the gaps. Fifty English study program student teachers at a university in Indonesia are the subjects. Twenty-five student teachers from the experimental group did collaborative writing activity by using Google Docs in their process of writing whereas the rest as the control group did individual writing although for idea development, they worked together by using WhatsApp. Data collection was from pre-tests, post-tests and from questionnaires. The study reveals that hybrid collaborative writing enhances student teachers’ engagement and has a great effect on students’ teacher writing achievement in hybrid learning class.

Keywords: collaborative writing, engagement, hybrid learning

INTRODUCTION
In this covid-19 pandemic, there is a change in the education field. These past two years, the teaching learning process is changing from face-to-face meeting to hybrid learning. It is actually a big issue for Indonesia as a developing country. The use of technology is really a big must now. On the other hand, the engagement process of online learning is being a challenge because engagement is the holy grail of learning. Writing for student teachers of English is their everyday activities as scholars. But it is full of problems. Based on the observation and interview in one of the state universities in Indonesia, problems in writing deal with the writing process (brainstorming ideas, drafting, revising, editing, and publishing) and also how to get feedback from their friends and lecturers. There is also an issue about cohesion and coherence in the students’ writing. Besides that, lack knowledge of appropriate vocabulary, difficulties in grammar and syntax, subject-verb agreement, pronouns, tenses, articles, prepositions, and basic sentence structures are also the problems in writing. In this hybrid learning, lecturers need effective teaching methods and appropriate technology in teaching writing in order that student teachers are helped in their process of learning how to write and produce a good composition in this hybrid learning environment.

Several studies have been carried out to investigate students' collaborative writing activities in higher education. Hairuddin (2017) found that incorporating Google Docs can improve students' writing skills. He discovered that students were interested in utilizing
Google Docs in collaborative writing activities. Sudrajat & Purnawarman (2019) investigated students’ collaborative writing in a translation class and revealed that they had a positive outcome while using Google Docs. Furthermore, Norazmi et al. (2017) demonstrated that utilizing a flipped-classroom approach (FCA) engages students in the writing process, it is shown by high mean scores in all three elements, namely emotion, cognition, and behaviour.

Emphasizing that collaborative writing activity can build an active learning process among the various methods that implement students-centered-learning (Suwantarathip & Wichadee, 2014), and studies which suggest that student’s engagement has crucial impacts on students learning process (Fredricks et al., 2004; Jung & Lee, 2018; Kahu & Nelson, 2018; Paulsen & McCormick, 2020; Redmond et al., 2018). Hence, this present study proposes to explore student engagement in collaborative writing activities as well as their writing achievement by integrating Google Docs in an academic writing class. To fill the gap from the previous studies, the study draws on investigating the learning engagement and writing achievement in the hybrid learning context and involves the student teachers of English. This study aims to explore the students’ engagement in collaborative writing by using Google Docs and also the students’ achievement in their writing product. The following research questions are formulated for the research:

1. How is the students’ engagement in hybrid collaborative writing by Google Docs?
2. Is there a significant difference in students’ writing achievement which are taught using hybrid collaborative writing by Google Docs?

Technology Enhanced Language Learning

Technological developments in this digital era are growing faster and indirectly will continually develop. Technology has functions to provide convenience for humans, one of which is the education sector. Therefore, technology is very important in the current era, especially in this pandemic situation. Educators will face challenges in adapting student teaching styles to accommodate a new generation of learners. They have their different learning style as digital natives (Hashim, 2018). The existence of technology allows educators to keep students active in the learning process, which are materials and build skills. Technology-Enhanced teaching and Learning (TEL) is broadly defined as applying technology to improve teaching and learning (Adom & Aravind, 2019). Thus, the term Technology Enhanced Language Learning (TELL) refers to using technological innovations to display multimedia as a complementary means of language teacher teaching methods. Webb and Doman (2019) stated that TELL can involve classroom learning using technology to help increase student autonomy and control in learning.

Many studies about TELL pop up lately (Tu, Zou, & Zhang, 2020; Zhang & Zou, 2020; Zou et al., 2018). Golonka et al. (2014) found that technology can increase learning motivation, efficiency, and communication skill; develop knowledge and language skills; enrich input sources; and encourage peer feedback. In line with that Kirkwood and Price (2014) argued that technology can help both teachers and also students included rich learning resources and high student engagement, deep knowledge understanding, and peer reflection. Studies about applying educational technology to improve students' collaborative learning, especially in task completion, problem-solving, and communication are many (Kukuliska-Hulme & Viberg, 2018; Shadiev & Yang, 2020).
Hybrid Learning

The education system continues to develop from using only conventional systems to becoming an all-digital system. Initially, the teaching and learning process was only in the classroom, but now the teaching and learning process can be done anywhere and anytime. Especially with the current Covid-19 pandemic, online learning is a model that should be used in the situation. In the new learning environment, technology information and communication as an innovation for helping teachings such as e-learning, open and distance learning, web-based learning, blended learning, and hybrid learning have been introduced in many courses (Eliveria et al., 2019). This allows students to learn anywhere, usually anytime, as long as they have computers and e-learning applications (Ziden et al., 2017). Hughes (2007), Owston et al. (2013), and Roby et al. (2013) discussed that hybrid learning gives learners flexibility and personal relationship between teachers and students. Thus, a hybrid learning environment is learning that combines various approaches to learning, namely face-to-face learning (F2F) and online-based learning experiences (Pavlidou et al., 2021). Higher education uses hybrid instruction to improve pedagogy, improve student learning outcomes and achievement, and increase cost-effectiveness (Eliveria et al., 2019).

Google Docs

Google Docs has become a widely applied platform because it allows for a learner-centered approach in educational contexts because of its functionality that enables the users to easily create, share, edit documents, spreadsheets, presentations, and forms online (Perron & Sellers, 2011). Chu & Kennedy (2011), Ebadi & Rahimi (2017, 2019), and Olesen (2020) discuss that Google Docs has considerable potential as a platform for collaborative work. It also helps to develop academic writing skills for EFL learners (Ebadi & Rahimi, 2017; Godwin-Jones, 2008) and edit documents both synchronously and asynchronously (Perron & Sellers, 2011). Google Docs feature enables to track and facilitate student work, thereby acting as mentors and facilitators and providing constructive feedback on student work (Chu & Kennedy, 2011; Ebadi & Rahimi, 2017; and Gillow-Wiles & Niess, 2015).

Various studies have been conducted regarding collaborative learning through Google Docs. It focuses on EFL collaborative writing and has highlighted the potential of innovative technology in serving as a space for peer feedback (e.g., Woodard & Babcock, 2014; Ebadi & Rahimi, 2017; Suwantarathip & Wichadee, 2014). Google Docs can facilitate the interactive feedback process of teachers through the comment and reply function (Alharbi, 2019; Ishtaiwa & Aburezq, 2015). Thus, Google Docs can boost students’ motivation and creativity in collaborative writing that led to students’ autonomy (Exarchou, 2016).

Learning Engagement

Student engagement in higher education has consistently been recognized as having a crucial impact on student outcomes, including successful completion of studies (Redmond et al., 2018). Krause (2005) defines student engagement as a catch-all term most usually employed to represent a compilation of behaviours involving student learning. In the online learning context, student engagement refers to how much time and effort students put into the online learning process (Ma et al., 2015). It can be used to identify key components of the learning process that can help students learn more effectively and

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achieve better outcomes, such as persistence and attainment (Paulsen & McCormick, 2020). A pleasant learning experience, course completion, and a sense of pleasure are the outputs or proximal consequences of online student engagement (Kahu, 2013; Kahu et al., 2019; O’Shea et al., 2015). As a result, it is critical to better understand the needs of online students to help them succeed and engage in higher education (Brunton, Brown, Costello, & Farrell, 2018; Kahu & Nelson, 2018).

Student engagement is divided into three elements: behavioural, emotional, and cognitive engagement (e.g., Fredricks et al., 2004; Jung & Lee, 2018). Behavioural engagement is like asking questions and engaging in communications; cognitive engagement is like obtaining complex knowledge or enhancing certain skills; and emotional engagement deals with students’ positive emotional feelings in online learning environments (Jung & Lee, 2018). Even though the conceptual underpinnings of student engagement predate online learning (McCormick et al., 2013), key aspects of student engagement such as active learning, peer collaboration, and teacher interaction do not presuppose or require face-to-face instruction. Banna et al., (2015) then assert, student-to-student interaction is crucial for enhancing engagement and retention in online courses. Furthermore, given the current scheme, educational technology has become an essential component of higher education, performing a critical role in influencing student engagement (Teng & Wang, 2021).

Student Teachers

Student teachers, also called pre-service teachers, according to Rahimi (2015) and Miao et al. (2017), refer to students who have attended pre-service training or education, which is a course of study that student teachers undertake before they begin teaching. Thus, teacher education entails the training of teachers who will be well-equipped to meet the needs of all pre-service teachers in a particular environment (Gonzalez & Balderas, 2016). Considering the current needs of society, teacher education is also encouraged to give chances for teachers to build their 21st-century skills and the ability to apply these skills in their future classrooms (Voogt & Roblin, 2012). Collaboration, communication, ICT literacy, creativity, critical thinking, problem-solving, and social and cultural competencies are all highlighted in these criteria (Voogt and Roblin, 2012 as cited in Voogt et al., 2013). To provide pre-service teachers with the confidence to incorporate 21st-century abilities into their teaching, they require ongoing assistance for the development of their 21st-century skills (Urbani et al., 2017). Therefore, this present study emphasizes improving student teachers’ collaborative skills through a writing course by using technology amid hybrid learning. As Graesser et al. (2017) and Griffin et al. (2012), stated, job vacancy requires collaboration between various disciplines, working in teams with diverse backgrounds and skills.

Collaborative Writing

Writing is really needed for student teachers especially because they are demanded to demonstrate what they have learnt in the academic context. There are three essential aims because students need writing: (1) writing is a form for expressing ideas, plans, recommendations, values, and commitment; (2) writing helps students to think critically and solve problems; and (3) writing is a way to discover and develop students (Stapa, 1998). In this study the writing process model is adopted from Williams’ (2003). It is also known as the phase model. This model is chosen because of some reasons: (1) writing is a complex process which consists of several development stages; (2) the writing process has certain influential states such as planning, drafting, and revising; and (3) there are some

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influential stages such as planning, drafting, and revising which are repeated simultaneously in the process of writing. This model consists of eight processes of writing: prewriting, planning, drafting, pausing, reading, revising, editing, and publishing.

Since 1970’s, the communicative language teaching approach has been used in the teaching and learning process for learning a second or foreign language. Teachers or instructors believe that pair work or group work can help students in learning the language together. Especially in academic writing classes, the teachers or lecturers implement collaborative writing to help students brainstorming the ideas, creating outline, making the first draft, giving feedback, editing, and producing the final product (Pham, 2021). Many researchers have proved that collaborative writing is an effective teaching method for learning academic writing (Dobao, 2012). Collaborative writing is an activity between two or more in creating a piece of writing (Storch, 2019). It is not only a cognitive process but also a social process that happens when students do collaborative writing. In line with Lowrey et al (2004), there is a social process when students have discussion and negotiation in the process of writing until it becomes a piece of composition. By collaborative writing activities, students learn a lot from their peers and get better results in their writing (Dobao and Blum, 2013).

**METHOD**

This study is mixed-method research which explores student teachers’ engagement and also the writing achievement by collaborative writing in a hybrid learning environment. The respondents of this study are 50 student teachers aged between 20-22, 8 % are males and 92 % are females. All students are involved in an academic writing class called *Professional Writing* course from one of the educational state universities in Indonesia. It is a two-credit course which aims to prepare student teachers to gain critical thinking, logical analysis, and convincing arguments in their writing task as a professional writer. The reason behind in choosing this particular course in this particular university is that most of the lecturers are used to teach using conventional learning method for teaching academic writing for student teachers. However, since the hybrid learning becomes more popular in this post-pandemic era, the use of online tools that support this hybrid learning environment need to be evaluated. Particularly, to see its significance in students’ engagement and writing achievements. Therefore, the instrument for students’ engagement is a questionnaire with 5-point Likert scale that consists of 24 items developed by Fredericks et al. (2004). The instruments for writing achievement are tests. The students are asked to write about a certain topic in the form of an argumentative essay. To provide more nuanced understanding, this study also uses class observation to provide richer understanding in students experience in this research. Therefore, as the initial step, the students writing ability were measured by giving a pre-test at the beginning of the class to measure the students’ writing skills for both experimental and control groups.

After the researcher has got a score from the pre-test, the researcher has given treatment. Treatment has been given to the experimental group by using collaborative writing and Google Docs in a hybrid learning environment. In this treatment, each group which consist of several student teachers are asked to write argumentative essay collaboratively by utilizing Google Docs. Nevertheless, since it is in hybrid learning environment, student teachers can still collaboratively work on this writing assignment inside and outside the classroom. It is because Google Docs provides them opportunity to access their ongoing group work anytime and anywhere, using their own devices. On the other side, the student teachers from control group write argumentative essay individually and conventionally.

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without Google Docs, although the idea develops by using WhatsApp. Hence, in this control group, the student teachers are working on their writing assignment only by relying on their own and without collaborative support from their peers. However, the lecturer certainly still take part as facilitator for both classes. At the end of the research, students were given a post-test to measure students’ writing skills for two classes. The writing achievement for both groups are measured using writing assessment rubric adapted from Brown (2007) which consist of content, organization, grammar, vocabulary and mechanics. However, since both groups have different kind of assignment, group work and individual work, therefore the score measurement for the group work is based on the student teachers’ overall group performance. Meanwhile, the individual work from control class can be seen clearly from their individual performance.

RESULTS AND DISCUSSIONS

This section presented two main discussions: the findings on students’ engagement questionnaire and analysis of students’ writing achievement. The data from the questionnaire were obtained from the experimental group (EG), students who were taught through a collaborative writing method using Google Docs. Then, the results were statistically described to identify students’ engagement experiences with that treatment. Moreover, students’ writing achievement in each group was analysed by utilizing SPSS 25. The analysis comprises descriptive statistics, the progress analysis (Paired sample t-test), and the mean difference analysis (Independent sample t-test).

Students’ Engagement Questionnaire Results

The instrument consisted of 24 items arranged according to a five-point Likert scale, ranging from ‘Strongly disagree’ to ‘Strongly agree’. This qualitative component of the questionnaire explored students’ engagement in collaborative writing by using Google Docs experiences.

Table 1. Descriptive Statistics the total of each dimension

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural</td>
<td>3.57</td>
<td>0.15</td>
</tr>
<tr>
<td>Cognitive</td>
<td>3.63</td>
<td>0.14</td>
</tr>
<tr>
<td>Emotion</td>
<td>3.49</td>
<td>0.13</td>
</tr>
</tbody>
</table>

High means were reported for the cognitive construct (See Table 1). It can be seen that of the three dimensions, the one with the highest mean is the cognitive dimension (M=3.63) with a total standard deviation (SD=0.14). These results indicate that the subscale that measures cognitive construct engagement includes combining aspects of motivation, independent learning, and strategy use (Fredricks and McColskey, 2012). The second is the behavioural dimension with a relatively standard total mean and standard deviation (M=3.57, SD=0.15). The last is the emotion dimension (M=3.49, SD=0.13).

In the behavioural construct, Student teachers need to put a lot of effort into their writing during the hybrid learning (M=3.84, SD=0.75, but they also feel they can complete the writing task using the learning material provided (M=3.76, SD=1.09). Student teachers could focus well during hybrid learning (M=3.16, SD=0.80) and actively participate during hybrid learning (M=3.44, SD=1.04). From the overall mean and standard deviation...
(M=3.57, SD=0.15) obtained for the behavioural construct, it can be said that student teachers well received the collaborative writing methods using Google Docs in a hybrid learning environment.

The total mean is 3.92 with a standard deviation value of 1.00. It showed that student teachers believed that the collaborative writing methods using Google Docs in a hybrid learning environment made them think about what they had learned and what was learned in the writing class. The student teachers also expressed that online learning materials help them complete their writing tasks based on the word “frequently” (M=3.72, SD=0.74). Most student teachers also find it easy to learn writing with collaborative writing methods by using Google Docs in a hybrid learning environment (M=3.48, SD=1.08). In items number 9 (M=3.72, SD=0.74) and 12 (M=3.64, SD=0.76), student teachers believe that they can express ideas clearly and write well after going through the collaborative writing methods by using Google Docs in a hybrid learning environment.

Student teachers assessed that the collaborative writing methods using Google Docs could help them review writing lessons (M=3.64, SD=1.04) and encourage them to explore more online material to complete writing assignments in a hybrid learning environment (M=3.48, SD=1.00). On the other hand, student teachers also agreed that they had experienced confusion during the hybrid learning (M=3.44, SD=0.87). Overall, the total mean of 3.63 for the cognitive construct shows that the student teachers expressed positive responses toward implementing the collaborative writing methods using technology, Google Docs, in a hybrid learning environment because it enables them to accomplish their tasks efficiently.

For the emotion construct, the item that scored the highest mean (M=4.04) showed that student teachers liked “receiving feedback” for their writing through the hybrid learning environment, using technology such as Google Docs. Student teachers also said that collaborative writing methods using Google Docs in the hybrid learning environment are favourable because they can learn at their “own pace” (M=3.52, SD=1.05) and provides flexibility (M=3.64, SD=1.08) by allowing them to “learn anytime and anywhere”. The majority of the student teachers agreed that collaborative writing methods by using Google Docs in a hybrid learning environment were engaging (M=3.48, SD=1.08), and they enjoyed the collaborative writing methods by using Google Docs in a hybrid learning environment (M=3.68, SD=0.90), compared to the statement “Hybrid learning is boring”, the implementation of hybrid learning is not always dull (M=3.24, SD=0.93).

Student teachers also felt “confident” (Mean=3.08, SD=0.76) and “prepared” (M=3.48, SD=1.05) in collaborative writing methods by using Google Docs in a hybrid learning environment. They also appeared to be more motivated to learn about writing by using Google Docs with collaborative writing methods, as indicated by a mean of 3.6 with a standard deviation value of 1.08. Student teachers were exposed to collaborative writing to learn writing in a hybrid learning environment by presenting their work on Google Docs to share their work with their peers easily.

On the other hand, there are two statements that showed worried emotions from student teachers, they are "I feel anxious (worried, nervous, afraid, nervous) learning to write without my teacher" (M=3.32) and "I am worried about my writing performance after going through the collaborative writing methods by using Google Docs in a hybrid learning environment” (M=3.36). These two statements implied that although students may feel motivated and engaged when learning to write using a collaborative writing method, sufficient availability of lecturers and mastery of the features/tools used still need to be considered to reduce student teachers' anxiety about writing. Overall, the total mean

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of 3.49 for the emotion construct shows that student teachers felt the collaborative writing methods method by using Google Docs are enjoyable and more effortless for student teachers to learn to write in the hybrid environment.

From all the points explained above, it can be concluded that the implementation of the collaborative writing methods using Google Docs in a hybrid learning environment can engage the students more to write. If it seen from the researcher’s observation, students' experiences show that those who previously only wrote individually often experienced several problems. Usually, students feel less confident about their writing, find it difficult to develop ideas that they brainstorm themselves, and feel overwhelmed. Hence, teachers must play a big role in guiding these students. On the other hand, utilizing Google Docs collaboratively can help students to work on their writing assignments together with their peers. In this way, students who have difficulty elaborating their ideas can discuss together with their peers in the same group which they belong so that solutions to problems can be resolved effectively. As a result, it also affects their speed in carrying out the argumentative essay assignment given, where each group tends to complete the assignment more quickly because they work on the assignment collaboratively. However, even though it is collaborative, each student can still learn independently because basically since they learn from each other by checking and giving feedback to each other in the group. It is where the Google Docs take the big part, where this tool can provide students synchronous or asynchronous access to their writing progress along with the other group members in the same document. Moreover, this collaborative learning environment solves the place and time limitation problems (Xu et al., 2019). In this way, they can give comments and provide suggestion to their group’s writing although they are not always in a face-to-face setting. It is because Google Docs is one of the tools that is pertinent for facilitating collaboration and peer feedback among students (Hoang & Hoang, 2022). Also supported by teachers’ facilitation, their writing process is more meaningful and more confidently presenting their final writing result. It is strengthened by the fact that hybrid learning has a beneficial impact on perceptions of engagement, accomplishment, and happiness (Fisher et al., 2021).

**Students’ Writing Achievement: Comparison between the Experimental and Control Group**

The data analysis was derived from the results of the tests using SPSS 25. The students' writing achievement was categorized into two groups: Group A (pre-test and post-test scores of students who learned through collaborative writing method using Google Docs) and Group B (pre-test and post-test scores of students who did not get any treatment). The data of students' writing achievement was assessed using a paired sample t-test to determine if there was improvement between the students' pre-test and post-test for each group. The data demonstrated that there was a significant difference in students’ writing achievement in the experimental and control groups. In the experimental group, the results indicated that the mean score was 85.36. In contrast, the control group showed the mean score was 79.96. It designates that the mean scores of the experimental class using collaborative writing method is higher than control class which was without any treatment or only using conventional writing method.

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Table 2. The Result of Writing achievement in Experimental and Control Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' Writing Score</td>
<td>Experimental Group (Collaborative Writing)</td>
<td>25</td>
<td>85.36</td>
<td>3.487</td>
<td>.697</td>
</tr>
<tr>
<td></td>
<td>Control Group (Conventional Writing)</td>
<td>25</td>
<td>79.96</td>
<td>5.955</td>
<td>1.191</td>
</tr>
</tbody>
</table>

Results of the progress analysis utilizing paired sample t-test reveal that the Sig. value (2-tailed) of the experimental group, 0.000 < 0.05, therefore, it shows that there is a difference between the means of students’ writing scores for pre-test experimental and post-test experimental group (Collaborative Writing). In a similar vein, the results of the control group, Sig (2-tailed), 0.000 < 0.05 which also indicates that there is a difference between the means of students’ writing achievement for pre-test control class and post-test control class (Conventional Writing).

Table 3. The Results of Paired Sample T-test

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test Experimental - Post-Test Experimental</td>
<td>-18.00</td>
<td>7.343</td>
<td>1.469</td>
<td>-21.031 -14.969 -12.257</td>
<td>24</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Pre-Test Control - Post-Test Control</td>
<td>-8.360</td>
<td>2.767</td>
<td>.553</td>
<td>-9.502 -7.218 -15.106</td>
<td>24</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Concerning the result of paired sample t-test in statistical data, the mean score of students’ writing achievement in the pre-test of the experimental group was 67.36 with a standard deviation was 5.908. Meanwhile, the mean of the students’ writing achievement in the post-test of the experimental group was 85.36 with a standard deviation was 3.487. Additionally, the output data displayed that students’ writing achievement in the pre-test of the control group was 71.60 with a standard deviation was 5.895. Otherwise, the mean of the students’ writing achievement in the post-test of the control group was 79.96 with a standard deviation was 5.955. It highlights that there is a significant improvement in both groups, however, the experimental group performs considerably higher scores of writing achievement.

Table 4. The Statistics Results of Paired Sample T-test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Pre-Test Experimental</td>
<td>67.36</td>
<td>25</td>
<td>5.908</td>
</tr>
<tr>
<td></td>
<td>Post-Test Experimental</td>
<td>85.36</td>
<td>25</td>
<td>3.487</td>
</tr>
<tr>
<td>Pair 2</td>
<td>Pre-Test Control</td>
<td>71.60</td>
<td>25</td>
<td>5.895</td>
</tr>
<tr>
<td></td>
<td>Post-Test Control</td>
<td>79.96</td>
<td>25</td>
<td>5.955</td>
</tr>
</tbody>
</table>

Table 5 shows the result of the independent sample t-test: the mean difference in writing post-test between the experimental and control group was 5.400 and the t-obtained test was 3.913 (p<0.000). Since the p-value of writing achievements (0.000) was less than 0.05, it means that there was a significant mean difference in writing skill achievements between
the students who were taught through a collaborative writing method and those who were not. It also demonstrates that collaborative writing is more effective in promoting students’ writing achievement.

Table 5. The Results of Independent Sample t-Test

<table>
<thead>
<tr>
<th>Students’ Writing Scores</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>6.052</td>
<td>.018</td>
<td>3.913</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>3.913</td>
<td>.000</td>
<td>5.400</td>
</tr>
</tbody>
</table>

Based on the results and interpretation of the t-test statistical analysis on students’ writing, it can be highlighted that the use of the collaborative writing method by integrating Google Docs statistically improved the students’ writing achievements. This could be seen from the result of the mean score of the descriptive statistic obtained by the experimental group, and the result of paired sample t-test which shows the experimental group made higher improvement than the control group in the pre-test and post-test. Additionally, there was a significant mean difference in writing achievements between the students who were taught through collaborative writing using Google Docs and those who were not. This finding is consistent with the results of the previous studies that show how collaborative writing can facilitate students’ engagement in a writing course (Norazmi et al. 2017), and the integration of Google Docs promotes students’ collaborative writing experiences (Hairuddin, 2017; Sudrajat & Purnawarman 2019).

CONCLUSION

The students’ engagement in hybrid collaborative writing by Google Docs is shone in the cognitive dimension (M=3.63) with a total standard deviation (SD=0.14), the behavioural dimension with a relatively standard total mean and standard deviation (M=3.57, SD=0.15) and the emotion dimension (M=3.49, SD=0.13). There is a significant difference in students’ writing achievement which are taught using hybrid collaborative writing by Google Docs. It can be seen from the mean scores of the experimental class using collaborative writing method is higher than control class which was without any treatment or only using conventional writing method. Hence, it can be concluded that teacher can use Google Docs in collaborative writing method to teach writing in collaborative learning environment, since this study has proven its effectiveness in improving students writing achievement. Apart from that, this method also helps the students to engage and motivated more in the teaching and learning process. However, it is implied that although students may feel motivated and engaged when learning to write using a collaborative writing method, sufficient availability of lecturers and mastery of the features/tools used still need to be considered to reduce students’ writing anxiety. Therefore, regarding the limitation of

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this study, it is suggested that future research would concern more on another issue such as students writing anxiety, use latest writing tools, and engage larger subjects to provide better understanding connected with the future trends of teaching writing. Nevertheless, it is still hoped that this study can be used as reference on what writing tool that can be used to support student engagement in hybrid learning environment.

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