



Investigating Students' Individual Writing and Collaborative Writing Performance on Different Genres

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Introduction

There has been an increasing trend in investigating collaborative writing in various classroom settings. For instance, Bhowmik et al. (2019) investigated collaborative writing in an EAP classroom in Canada. The study indicates that students positively perceive collaborative writing, leading them to become more aware of their actual language proficiency. Further studies (Kim & McDonough, 2008; Swain et al., 2009; Watanabe, 2008) reveal that collaborative writing encourages pooling of knowledge about language, such as transitioning, selecting words, and enabling the learners to use the language in the appropriate context. In addition, findings from Storch (2011) have suggested that collaborative writing improves students' writing quality compared to their individual writing. In this regard, collaborative writing results in better writing performance for students than individual writing performance.

A preponderance of studies have also discovered the advantages of collaborative writing by contrasting individual and collaborative works. The research by Storch (2005) has unveiled that students working in pairs take a longer time to complete the tasks, but they can produce more accurate written texts than those working alone. In the same vein, Wigglesworth and Storch (2009) examined argumentative essays done by twenty-four pairs and forty-eight individual learners, and they found that argumentative texts written in pairs were significantly more accurate than those written individually. In general, the quality of collaborative texts, as indicated in studies by Dobao (2012), McDonough et al. (2018), and Zhang and Plonsky (2020), is higher than individually written texts.

Learners' performance is influenced by variables, including second language proficiency, text type, computer-mediated environment, and the number of members in collaboration. Those variables may affect the patterns of interaction and collaborative writing learning opportunities (Garcia Mayo & Imaz



Agirre, 2019; Storch & Aldosari, 2013). Based on those variables, some studies have identified that text type may influence students' writing achievement (McDonough & Fuentes, 2015; Shehadeh, 2011; Storch, 2005). In analyzing text types, previous studies have advocated contradictory findings. Shehadeh (2011) has pointed out that collaborative writing texts receive higher ratings on content, organization, mechanics, and accuracy. On the other hand, two studies have reported that there was no difference in students' text ratings on mechanics and accuracy due to the variety of texts (McDonough & Fuentes, 2015; Storch, 2005). In Shehadeh's (2011) analysis, students were asked to write descriptive paragraphs; meanwhile, the other studies explored alternative writing genres, such as problem/solution and cause/effect paragraphs (McDonough & Fuentes, 2015) and argumentative essays (Storch, 2005). Therefore, it indicates that text type affects the students' writing quality.

In addition to the text type, a brief paragraph may have a very distinct effect of collaboration in the composition of longer text, such as argumentative essays (McDonough et al., 2018). Additionally, writing an essay and writing a paragraph are entirely different. Shehadeh (2011) discovered that students do not face many organizational challenges (with or without collaborative writing) when they write paragraph(s). The task is easier because they do not need to generate connections or produce various text sections between paragraphs (e.g., introduction, body paragraphs, and conclusion) as they do in writing essays. In writing essays, students are also required to provide more elaboration of ideas and supporting details as well as connections between paragraphs (Storch, 2005, 2007). They need to pay attention to the grammatical complexity or accuracy, such as t-unit measures (e.g., words or clauses per t-unit), subordination (dependent clauses/clauses), or nominal and relative clauses (Dobao, 2013; Johnsons, 2012).

To summarize, collaborative writing has been associated with greater accuracy, varying effects on analytic ratings, and largely insignificant findings for various complexity measures compared to individual writing. Nevertheless, the deep analysis of individual and collaborative writing on different genres is still underexplored. Thus, the present study is set to scrutinize whether those kinds of writing make any difference in students' writing quality across genres, i.e., descriptive and argumentative writing text. Further, the current research aims to uncover (1) the difference between students' individual and collaborative writing performance when they compose descriptive texts and (2) the difference between students' individual and collaborative writing performance when they compose argumentative texts.

Method

Participants and Instructional Context

Thirty undergraduate students majoring in the English Language Teaching Department at one of the reputable universities in Indonesia were invited to participate in this study. They were in the fifth semester, which means they had passed paragraph writing and essay writing courses in previous semesters. Additionally, the selection of text types was linked to the syllabus, i.e., descriptive and argumentative texts. Suriyanti and Yacoob (2016) outlined that descriptive text is considered simple in academic discourse. The mastery of descriptive texts can be a fundamental aspect of the writer to craft better writing. It is suggested to help students understand better-structured texts such as argumentative, exposition, and narrative writing.

Besides that, another genre elaborated on in the department was argumentative. In this writing genre, students were required to possess complex cognitive and linguistic skills (Nippold & Ward-Lonergan, 2010). Argumentative writing not only seeks to convince people to believe or do something, but it also entails the establishment of a claim, which is supported by justifications or proof from numerous sources and links in concept to the claim (Hillocks, 2011). Therefore, descriptive and argumentative texts were chosen as the types of text for the participants' writing tasks.

The materials of this current study consisted of three writing tasks on descriptive texts and three writing tasks on argumentative texts. In this study, the researchers did not involve any teaching practice to

improve students' writing ability since they solely aimed at comparing the students' performance in writing argumentative and descriptive texts individually and collaboratively. Every meeting has a different topic: three topics in writing descriptive text, i.e., "The Most Inspiring Teacher", "The Tourism Sites in Your Hometown", and "Your Dream City". Meanwhile, topics for argumentative writings were "The Death Penalty for Corruptors", "IQ vs EQ vs. SQ", and "Nuclear Family vs. Extended Family". The writing prompts asked the students to write each composition (both individually and collaboratively) in 40 minutes and suggested a minimum requirement of 150 words. In writing collaborative compositions, the students worked in self-selected pairs.

The students' compositions were collected within six meetings. In the first three meetings, they were asked to compose descriptive writing individually and then in pairs. The students were asked to compose three argumentative writings individually and in pairs in the following three meetings. The chronological order was the same for both genres: writing individually first then writing collaboratively. This order probably affected the students' writing performance. In this regard, the researchers did not apply a counter-balanced effect, which presumably affected students' overall writing quality.

Data Analysis

The students' compositions were scored based on, a 0 to 100-point scale which covered content, organization, grammar, vocabulary, and mechanics. The quality of those compositions was rated based on Hedgcock and Lefkowitz's (1992) rating scales with distribution in the following aspects:

TABLE 1
The Writing Rating Scales

The Aspects	The Detail Criteria	Maximum Score
Content	<ul style="list-style-type: none"> • knowledge of a subject • development of thesis • converge of a topic • relevance of details • substance • quality of details 	30 points
Organization	<ul style="list-style-type: none"> • fluency of expression • clarity in the statement of ideas • support • organization of ideas • sequencing and development of ideas 	20 points
Grammar	<ul style="list-style-type: none"> • accurate use of sentence structures and constructions • accuracy and correctness in the use of the agreement, number, tense, word order, articles, pronouns, prepositions, negation 	25 points
Vocabulary	<ul style="list-style-type: none"> • range • accuracy of word/idiom choice • mastery of word forms • appropriateness of register, effectiveness in the transmission of meaning 	20 points
Mechanics	<ul style="list-style-type: none"> • conventions of spelling, punctuation, capitalization, paragraph indentation 	5 points

Note. The rating scale was adapted from Hedgcock and Lefkowitz (1992)

Since there were 12 sets of scores, 3 sets of scores (from three topics) were averaged to obtain four means. The first mean score was the mean of individual performance on descriptive writing, acquired by averaging the students' performance individually on three descriptive writings. The second mean was the mean of students' pair performance on descriptive writing, obtained by averaging the students' performance collaboratively on three descriptive writing. The third mean is the mean of students'

individual performance on argumentative writing, acquired by averaging it on three argumentative writings. The fourth mean was the mean of students' pair performance on argumentative writing.

In relation to reliability, this research applies intra-rater reliability. In this regard, one of the researchers became the rater of the students' compositions. The rater is a doctoral program student in a university in Indonesia. She marked all the students' compositions twice on different occasions. In marking the compositions for the first time, the rater picked the compositions randomly and blindly, without paying attention to their names to avoid any bias. The same marking procedure was also applied in the second marking. The scores obtained from two different occasions were then divided. After that, the scores were processed with SPSS using two sets of paired sample t-tests to see if there were significant differences between students' collaborative performance and individual performance on both genres (descriptive and argumentative writing).

Results

The Difference between Students' Writing Performance Individually and Collaboratively When They Compose Descriptive Text

This section presents the results of two sets of Paired Sample T-tests that encompass information about the students' writing performance in two conditions: firstly, their individual and collaborative performance on descriptive writing; secondly, their individual and collaborative performance on argumentative writing. Table 2 presents the result of individual and collaborative performance on descriptive writing as the first genre investigated in this study.

TABLE 2

The Average Scores of Students' Writing Performance Individually and Collaboratively on Descriptive Writing

	Mean	N	Std. Deviation	Std. Error Mean
Descriptive Individual	72.43	30	5.685	1.038
Descriptive Pairs	75.93	30	5.192	.9480

Table 2 shows that the mean of the pairs group is higher than (75.93) the individual group (72.43) in descriptive writing. The standard deviation for the two groups of compositions is closely similar (5.685 in individual work and 5.192 in pair work), implying that the students' performance on individual and collaborative compositions is homogeneous.

TABLE 3

The Difference in Students' Writing Performance in Descriptive Writing Individually and in Pairs

Type of text	<i>t</i>	Sig. (2-tailed)
Descriptive	-15.30	.000

Table 3 indicates that the differences between students' individual performance and collaborative performance when they compose descriptive text are statistically significant. It can be seen from the *Sig. value*, that is .000. Since the *Sig. value* is below .05, this result strengthens the previous tables that students' writing performance is significantly different when they write the compositions individually and collaboratively.

The Difference between Students' Writing Performance Individually and Collaboratively When They Compose Argumentative Text

Tables 4 and 5 present the results of individual and collaborative performance on argumentative writing as the second genre this study scrutinized.

TABLE 4

The Average Scores of Students' Writing Performance Individually and Collaboratively on Argumentative Writing

	Mean	N	Std. Deviation	Std. Error Mean
Argumentative Individual	70.07	30	6.341	1.158
Argumentative Pairs	73.50	30	6.548	1.196

Table 4 demonstrates that students' writing performance on argumentative writing in pairs ($M = 73.50$) is much better than their performance individually ($M = 70.07$). The standard deviation between individual work and pair work on argumentative writing is closely similar (6.548 in individual work and 6.341 in pair work).

TABLE 5

The Difference in Students' Writing Performance in Argumentative Writing Individually and in Pairs

Type of text	<i>t</i>	Sig. (2-tailed)
Argumentative	-11.513	.000

It can be seen from Table 5 that the Sig. Value is .000 (below .05), indicating that there is a significant difference between students' performance individually and collaboratively on argumentative writing. This implies that how students compose the texts affects their writing performance. As shown from Table 4 and Table 5, the quality of students' collaborative compositions is much better than the quality of their individual compositions.

Discussion

The results in Table 2 exemplified that students' performance in composing descriptive text collaboratively was much better than their performance individually ($M = 75.93 > 72.43$). The analysis of data also supported it. The Sig. (2-tailed) was less than .05, which indicated a significant difference in students' writing performance between individually and in pairs. These findings confirmed Shehadeh's study in 2011 that collaborative writing had a significant effect on improving students' writing in L2 compared to individual composition. An interesting point to note is that the students' scores in collaborative work in this study were slightly higher than what had been found in Shehadeh's (2011) study. On the other hand, the means of individual work in the present study were much higher than those in Shehadeh's (2011) study. This result highlighted that students' performance on collaborative writing was better than their individual writing.

Another interesting point in this study is that students also achieved better scores in argumentative writing when they wrote collaboratively. Although it is believed that argumentative writing is more challenging than other genres of writing (Ardiasih et al., 2019; Hyland, 2003; Johns, 2011), collaborative writing in the current research is witnessed to have a significant impact on the quality of students' argumentative texts. As depicted in Table 4, the means of students' pair work on argumentative writing was higher than their performance individually ($M = 73.50 > 70.07$). However, this current study showed that the pair work in argumentative writing (73.50) was slightly lower than the means of pair work in descriptive writing (75.93). This might be due to the complexity degree of fulfilling the writing genre. Kim and McDonough (2008) argue that argumentative composition offers a higher lexicon and syntactic

complexity than descriptive writing. Overall, the current findings presented evidence that students composed texts better in pairs than individually across the text types (genres). Previous research has validated this outcome (Bikowski & Vithanage, 2016; Brooks & Swain, 2009; Dobao, 2012, 2014; McDonough & Vleeschauwer, 2019). It is inferred that collaborative writing resulted in higher performance in writing on different genres.

The findings of this study also strengthened the study done by Storch and Wigglesworth (2007). They compared collaborative writing and individual writing of advanced learners; the findings indicated that advanced L2 writers produced more accurate texts as they worked in pairs compared to their individual texts. It was because advanced learners obtained benefit from immediate feedback from their similar proficiency partner during collaboration, and this situation did not occur as they wrote texts independently. To this point, collaborative writing does not only significantly affect students' writing performance based on genres, but it also positively affects students' writing quality based on proficiency pairing. As indicated in this study, the higher writing performance resulted more from collaborative work than individual work and could be viewed from the sociocultural learning theory (Vygotsky, 1978). Based on the Vygotskian approach, social interaction is indispensable to build knowledge, and it enables students to learn from each other and develop their linguistic and writing knowledge during collaboration. In addition, collaborative writing serves as a mutual mediation that allows learners to discuss and co-construct new knowledge that later being internalized, applied, and enhanced in the future writing task (Edstorm, 2015; Villarreal & Gil-Sarratea, 2019; Zhang, 2019).

Furthermore, the media of writing should be concerned. In this study, the researchers conducted the research in offline writing class, which let the students accomplish face-to-face collaboration. Even though, it was found that collaborative work was significantly higher than individual work, some limitation points were noticed in the present study. For example, the phenomenon of the Covid-19 pandemic hinders some students from being brought into the offline class. Additionally, Baecker et al. (1994) previously mentioned that the drawback of collaborative writing using conventional technologies such as pen and paper, board, or computer is the limited ability to view the work of students' peers during the process. Thus, an exploration of another mode (i.e., online mode) of performing collaborative writing is required to alleviate this limitation.

The use of online platforms for collaborative activity might encourage students to communicate socially and support one another's tasks straightforwardly (Anggraini & Cahyono, 2020). It is in line with the study conducted by Nam (2017) and Vorobel and Kim (2017). They noticed that online collaborative writing (OCW) activity was more enjoyable than a face-to-face writing setting because the students could adjust their own phase while accomplishing writing tasks, and their friends might assist them in correcting their writing. Moreover, the online environment was observed to contribute to students' writing performance (Khoiriyah, 2021), especially in L2 writing accuracy (Bailey & Judd, 2018). Students further mentioned the benefits of collaborating in an online mode using some applications, such as ease of use, the capacity to work together out of different locations, and the ability to provide comments online. The students demonstrated a proclivity to divide their tasks during collaboration (Andrew, 2019). It can be highlighted that OCW might facilitate students to obtain better writing achievements.

Conclusion

This study highlighted a point that collaborative work significantly affected students' writing quality regardless of the genres. This indicated that collaborative writing could facilitate language learning more optimally as it was compared with individual writing. These findings inform EFL teachers to be aware of the merit of pair collaboration in EFL writing classes. Thus, collaborative writing can be utilized to maximize EFL students' writing performance in different genres.

However, some limitations are noted. First, this study was limited in terms of sample size (30 participants). Hence, similar research on a larger scale in an EFL setting is recommended to generalize

how collaborative writing works on descriptive writing and argumentative writing in EFL contexts. The second, investigating merely on student' writing performance on two genres is not adequate. Thus, future research is recommended to investigate students' collaborative writing on other writing genres, such as expository and narrative writing, report, or the other genres, to see whether collaborative writing also improves students' performance on other genres. It would also be interesting to have a deeper analysis of the analytic rubric covering content, organization, grammar, and vocabulary). Future studies can also see the linguistic measures of accuracy (errors/word), coordination (coordinated phrases/clauses), and subordination (dependent clauses/clauses) when students write individually and in pairs to depict which part of the analytic rubric improves more when students write independently and collaboratively.

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