Collaborative Writing Assisted with Edmodo Learning Management System in Indonesian EFL Classes: Learners' Attitudes and Learning Engagement

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Abstract

Many studies on the use of Edmodo learning management system (ELMS) in writing classes have been documented. However, little is known about learners' attitudes toward collaborative writing assisted with ELMS and their learning engagement in online learning. The present study aims to examine learners' attitudes toward ELMS-assisted collaborative writing and their attitudes toward learning engagement in ELMS-assisted collaborative writing. The study involved the second-year undergraduate learners enrolled in an *Essay Writing* course offered in the third semester of the English education department at a university in Central Borneo, Indonesia. A sample (n=85) was selected from a population sample of all learners of the three classes. A writing attitude survey questionnaire was distributed to the participants to examine learners' attitudes toward ELMS-assisted collaborative writing. Out of the total number of participants, twelve learners were selected for in-depth interviews to explore their attitudes toward learning engagement in ELMS-assisted collaborative writing. They were selected according to their English proficiency and contribution level to collaborative writing practices. The study used a quantitative method using a survey questionnaire and a qualitative method using in-depth interviews. The data obtained from the questionnaire were analyzed statistically while the data obtained from the interviews were analyzed using thematic analysis. The results show that the learners demonstrated positive attitudes toward ELMS-assisted collaborative writing. They were actively engaged in learning to write by sharing ideas for writing, providing feedback for revision, having a productive discussion through peer-to-peer learning, and developing creativity in writing. This study has pedagogical implications for how learners' positive attitudes and learning engagement contribute to the successful ELMS-assisted collaborative writing practices in online learning for the enhancement of their writing skills in EFL classes.

Keywords: Attitudes toward learning engagement, Edmodo learning management system (ELMS), online learning platform, technology-assisted collaborative writing

Introduction

In recent years, the teaching and learning of English as a second or foreign language (ESL/EFL) have shifted from face-to-face mode to online mode (Namaziandost et al., 2021) mainly as a result of the COVID-19 pandemic. Consequently, ESL/EFL teachers have used technological tools in the forms of blended learning (Cobanoglu, 2017; Purnawarman et al., 2016; Safdari, 2021) and online learning (Rad et al., 2022; Rahimi & Fathi, 2021; Shih, 2020; Such, 2019). One of the potential technological tools incorporated into the online classrooms is Edmodo, more particularly the Edmodo learning management system (Cobanoglu, 2017; Ma'azi & Janfeshan, 2018; Purnawarman et al., 2016; Qaddumi, 2021). The application of Edmodo learning management system (ELMS) has been reported in a number of studies (see Altunkaya & Ayranci, 2020; Al-Khatiri, 2015; Al-Naibi et al., 2018; Anwar, 2021; Asmara et al., 2021; Cobanoglu, 2017; Ma'azi & Janfeshan, 2018; Miftah, 2018; Nami, 2020; Noviana et al., 2015; Purnawarman et al., 2016; Qaddumi, 2021; Safdari, 2021; Yusuf et al., 2018) and they showed diverse findings.

In writing classes, in particular, the ELMS could facilitate the teaching of writing in a blended learning mode (Al-Khatiri, 2015; Al-Naibi et al., 2018; Altunkaya & Ayranci, 2020; Anwar, 2021; Asmara et al., 2021; Cobanoglu, 2017; Ma'azi & Janfeshan, 2018; Miftah, 2018; Noviana et al., 2015; Purnawarman et al., 2016; Safdari, 2021; Yusuf et al., 2018) and it could improve skill in paragraph writing (Al-Naibi et al., 2018; Safdari, 2021) as well as in essay writing (Cobanoglu, 2017; Ma'azi & Janfeshan, 2018; Miftah, 2018). In collaborative writing practices, Anwar (2021) and Asmara et al. (2021) reported that ELMS could be applied in both blended learning and online practices. A study by Altunkaya and Ayranci (2020) revealed that Edmodo significantly contributed to learners' academic writing achievement.

Besides improving the learners' writing skills and writing achievement, the application of ELMS has been responded positively by the learners. Al-Khatiri (2015), Ma'azi and Janfeshan (2018), and Safdari (2021) found that students had positive attitudes toward writing practices managed by using ELMS. This finding is consistent with the results of research on the learners' positive attitudes toward practices in web-based collaborative writing (e.g., Cobanoglu, 2017; Hosseini et al., 2020) However, research on learners' attitudes toward ELMS-assisted collaborative writing and their attitudes toward learning engagement in online learning are rare undertakings.

In Indonesian EFL writing classes, in particular, research studies (e.g., Anwar 2021; Asmara, 2021) have reported that the use of ELMS significantly influenced learners' collaborative writing in blended and online learning, Meanwhile, other research (Noviana et al., 2015; Purnawarman et al., 2016; Noviana et al., 2015; Yusuf et al., 2018) found that ELMS affected on the improvement of learners' writing skills in terms of writing kinds of texts. ELMS encouraged learners to get more writing practices, interact for sharing and discussion, and have more chances for feedback on peers' works (Anwar 2021; Asmara, 2021). In addition, ELMS positively impacted learners' writing aspects and teachers could manage the learning processes not only individually but also in groups (Yusuf et al., 2018). Moreover, ELMS was an effective medium for assisting learners in writing narrative text (Noviana et al., 2015) and it cognitively engaged the learners in the writing learning process in blended learning (Purnawarman et al., 2016).

While these studies addressed the issue of facilitating EFL learners with collaborative writing assisted with ELMS, we have not found any research investigating learners' attitudes toward ELMS-assisted collaborative writing and their learning

engagement in online learning. Hence, the present study attempts to examine EFL learners' attitudes toward ELMS-assisted collaborative writing and their learning engagement in online learning. Through the lens of investigating learners' attitudes and learning engagement in the practice of ELMS-assisted collaborative writing, the study would practically contribute to the successful practice of ELMS-assisted collaborative writing and pedagogically provide implications regarding new insights and fruitful reflections of the successful ELMS-assisted collaborative writing practices in online learning.

Literature Review

ELMS-assisted Collaborative Writing

Edmodo, firstly introduced as a social network tool, has been used by teachers and learners in various educational fields worldwide since 2008 (Edmodo, 2021). As a global education network, Edmodo helps teachers interact with learners and learners with peers for educational purposes. It has developed and turned into an alternative online learning platform used in thousands of schools (Dilekçi & Çiçek, 2022; Edmodo, 2021). Croitoru and Dinu (2016) and Nami (2020) introduced Edmodo as a learning management system since it has pedagogical features for educational activities such as the management of courses. Edmodo learning management system (ELMS) can assist collaborative writing practices (Artawan & Suarta, 2022; Balasubramanian et al., 2014).

ELMS has been used widely for language learning (Al-Kathiri, 2015; Hosseinpour et al., 2019; Qaddumi, 2021; Warawudhi, 2017). Language teachers and learners around the world have used ELMS to develop a learning environment and stimulate learners' participation to provide feedback to achieve learning goals (Qaddumi, 2021). Besides, it can increase learners' learning motivation so that their academic achievement enhances (Alkandari, 2019). Even though Edmodo developed into ELMS is very useful as a free learning platform, it is the potential to develop according to the education demands (Raman & Rathakrishnan, 2019) in language learning classes (Türksoy & Karabulut, 2020; Warawudhi, 2017). Similarly, Al-Kathiri (2015) states that although learners have positive perceptions of ELMS, it seems to be a tremendous challenge for the implementation in language learning. In the implementation, teachers and learners can share educational materials and connect so that they can collaboratively work in the class forum (Qaddumi, 2021). In addition, in teaching and learning ELMS provides learners with the opportunity to interact in collaborative writing (Awwad et al., 2021; Chen et al., 2022).

Collaborative writing has fruitful impacts on writing improvement. Chen and Yu (2019) found that collaborative writing increased the quality of various aspects of writing due to the availability of room for generating ideas and avoiding the same mistakes. Besides affecting writing quality, collaborative writing affects the quantity of learners' learning to write (Zhang, 2022) and guided them to actively practice critical thinking by analyzing, evaluating, and creating written texts (Moonma & Kaweera, 2022; Seneviratne et al., 2021). In the process and product assessments, collaborative writing improves learners' writing performance in terms of fluency, product quality, and phrasal

complexity (Zhang & Chen, 2022). In addition, collaborative writing activity socioculturally affected learners with more emphasis on writing accuracy (Le, 2022).

With the intense use of technology in online learning nowadays, web-based collaborative writing is useful to improve learners' writing performance. Collaborative writing was found to contribute to the areas of content, organization, and language use as well as to self-regulation in writing (Rahimi & Fathi, 2021). Moreover, the complicated factors to be considered in the teaching of writing are learners' behavior and belief of knowledge of second language learning particularly their self-directed learning and self-efficacy in writing, and the factors are considered for learners' writing performance facilitation (Boykin et al., 2019). Although web-based collaborative writing has succeeded in facilitating learners' writing performance and their self-directed learning, teachers should facilitate learners more with the various activities to engage them in collaborative work participation (Bouchrika et al., 2021; Chen, 2022). Anwar's research (2021) indicated that combining Edmodo and collaborative writing strategy encouraged learners to participate and interact with others in group work. Thus, collaborative writing emphasizes the interaction in various stages of the writing process and builds up a cooperative relationship for realistic writing task production (Hamp-Lyons & Heasley, 1987). However, it should be noted that each member is responsible for their writings (Louth, 1989), and they should be encouraged to engage in the development process of their peers' works and their works during online collaborative writing practices as insightful inspiration for writing productions (Chen, 2022).

Learners' Attitudes and Learning Engagement in ELMS-assisted Collaborative Writing

Like other forms of online learning, ELMS-assisted collaborative writing creates a variety of learners' attitudes (Al-Khatiri, 2015; Ma'azi & Janfeshan, 2018; Safdari, 2021). Learners' attitudes toward collaborative writing have been considered a significant variable to determine the success of technology-based collaborative writing learning (Hosseini et al., 2020). Further, collaborative writing learning strategies applied in writing classes might yield learners' approval or disapproval of collaborative learning (Chen & Yu, 2019; Louth et al., 1993; Such, 2019). Empirical studies have shown learners' positive attitudes toward web-based collaborative writing learning practices (e.g., Cobanoglu, 2017; Hosseini et al., 2020; Ma'azi & Janfeshan, 2018; Rahimi & Fathi, 2021). However, little is known about the learners' attitudes toward ELMS-assisted collaborative writing in online learning.

In the present study, learners' attitudes are measured in ELMS-assisted collaborative writing. Tezbasaran (1997) states that attitudes tend to create positive or negative reactions learned to certain objects, situations, organizations, concepts, or other people. Attitudes with three elements – cognitive, affective, and behavioral (Bass & Chambless, 1994; Soyer et al., 2016) – could influence learners' behavior and learning engagement with technologies (Tran, 2020). Additionally, determining attitudes toward web-based collaborative writing is notable in determining success in the activity (Cobanoglu, 2017; Ma'azi & Janfeshan, 2018). This information is substantial to ensure success or failure in web-based collaborative writing (Rahimi & Fathi, 2021). Moreover, the salient effect of attitudes is also a problem in achieving the success of collaborative writing learning (Hosseini et al., 2020; Louth et al., 1993). Therefore, learners' attitudes

toward certain writing strategies consisting of affective and behavioral areas become effective in the requested success in academic achievement as well as in the cognitive field (Song, 2019). Song (2009) augmented that writing skills are needed for academic achievement and the future needs of learners.

Learning engagement is also explored in this study. Learners' engagement in learning activities has emphasized the writing class to improve the quality of teaching and learning. The idea emerged from Bloom (1959) labeling three engagements: behavioral, emotional, and cognitive. Farizka and Cahyono (2021) mentioned that learning engagement in writing class is indicated by learners' attendance and writing engagement as behavioral engagement, their interest and enjoyment in writing activities as emotional engagement, and their curiosity for active involvement as cognitive engagement. In collaborative writing, learners' learning engagement appeared from social interaction and a conducive learning environment (Chen & Yu, 2019). When they were engaged in collaborative writing tasks, learners get facilitated to transform their thinking and development skills to L2 writing academic literacies (Li & Yang, 2022). Moreover, in online collaborative writing assisted with a social learning analytics tool, learners' social and cognitive engagement in learning could be enhanced (Chen et al., 2022). Hence, fostering learners to practice learning in online collaborative writing should be applied in the view of writing pedagogical design (Chen et al., 2022).

The application of ELMS has given a positive impact on the writing achievement of learners from various nationalities such as Saudi Arabian (Al-Khatiri, 2015) and Iranian (Cobanoglu, 2017; Ma'azi & Janfeshan, 2018). It also has given positive social impacts on writing engagement (Chen & Yu, 2019) and the writing learning process in blended learning (Purnawarman et al., 2016). More recent studies (Altunkaya & Ayranci, 2020; Anwar, 2021; Asmara, 2021; Safdari, 2021; Qaddumi, 2021) have found that diverse ELMS practices contribute to social network for learners' writing accuracy and assist them in academic writing achievement in collaborative writing. However, little research has examined learners' attitudes toward ELMS-assisted collaborative writing and their learning engagement in online learning, more specifically in the Indonesian EFL context. Hence, this study aimed to examine learners' attitudes toward collaborative writing and their learning engagement during the online writing class facilitated with ELMS. The results would be fruitful to reflect the collaborative writing practices in online learning assisted with ELMS in EFL writing class.

Research Questions

To guide this study, the research question is formulated as follows: "What are the EFL learners' attitudes toward ELMS-assisted collaborative writing and their perspectives regarding their learning engagement in ELMS-assisted collaborative writing?"

Method

Design

In this study, we applied a combination of quantitative and qualitative research designs. It focused on the descriptions of natural phenomena that occurred naturally without manipulated conditions. A survey (Mackey & Gass, 2005; McKay, 2006) was employed to explore in-depth EFL learners' attitudes toward ELMS-assisted collaborative writing practices and their perspectives regarding learning engagement in ELMS-assisted collaborative writing in online learning. For this purpose, the qualitative findings were used to assist elaborate, refining, and verify the quantitative findings. McKay (2006) states that a survey study is "sandwiched between statistical experimental research and qualitative research…it can use both statistical and qualitative analysis." (p. 16). Survey research is a method of gathering data about the attitudes, characteristics, and perspectives of a large group of people (Mackey & Gass, 2005).

Participants

The participants of the study were second-year undergraduate learners enrolled in an *Essay Writing* course offered in the third semester of the English education department at a university in Central Borneo, Indonesia. A sample (n=85) was selected from a population sample of all learners of the three classes of the course. The participants included 18 males (21.18%) and 67 females (78.82%) learners with an age range from 18-23 (see Table 1). The course was held once a week for 16 weeks, with each class session lasting for 100 minutes in online learning assisted with ELMS. The course's objective was to help learners fully develop their abilities in writing various types of essays in English. The participants had at least six years of experience in formal English learning at secondary schools and one year at the university. In their first-year university, they have taken a *Paragraph Writing* course as a prerequisite to enrolling in the *Essay Writing* course. For the study participants, we previously informed all learners to be part of the research participants while they were joining in the course, and they agreed to voluntarily take part in the research.

Table 1
Demographic information of the research participants

Participants	Gender	Frequency	Percentage (%)	Ages (year) $SD=1.01$	Semester enrolled	Formal English learning experience (year)	English proficiency
Questionnaire	Male	18	21.18	18-23	3rd	7	Low to high
	Female	67	78.82	18-23	3rd	7	Low to high
	Total	n=85	100				
Interview	Male	3	3.53				
		(P2)		19	3rd	7	High
		(P7)		21	3rd	7	Mid
		(P9)		19	3rd	7	Mid
	Female	9	10.59				

	(P1), (P3), (P5)	19	3rd	7	High
	(P4)	20	3rd	7	High
	(P6), (P8)	19	3rd	7	Mid
	(P10), (P11), (P12)	19	3rd	7	Low
Total	n=12	14.12			

Data Collection

The data for this study were collected from the writing class in online learning during the COVID-19 pandemic. The first author was a teacher teaching in the class implementing a collaborative writing strategy assisted with ELMS. Edmodo was chosen as the tool to help students collaborate due to some considerations. Edmodo has pedagogical features for course management (Croitoru & Dinu, 2016; Nami, 2020) facilitated with a grouping feature by which teachers can easily make small groups as needed and provide learners with the groups for collaborative writing activities (Edmodo, 2021). This is different from other tools (for example, Google Docs) as they have similar functions, but they are limited in this facility (see an example of the group in Figure 1). In addition, the teacher as a facilitator can easily control the collaborative writing process because it automatically exists in small groups.

Figure 1
A small group of ELMS for collaborative writing activities

Procedure

Before working on collaborative writing activities, all of the participants were trained to use ELMS for collaborative writing practices. The teacher divided them into small groups of four or five learners. Members of each group posted their essay drafts, shared ideas, expressed feelings, gave feedback on the drafts, revised and edited the drafts based on user feedback, and wrote the final product.

After the collaborative writing practices, we distributed the writing attitude survey questionnaire to all learners of the three writing classes through Google Form, and the participants (n=85) took part in the questionnaire. The questionnaire used in this study was based on the Likert-type questionnaire used to measure learners' attitudes toward collaborative writing developed by Cullen (1968). She reported the validity and reliability of the questionnaire. Its reliability coefficient is of .62 to .66 in the test-retest procedures which indicated good reliability. In addition, some items taken from a questionnaire used by Beard et al. (1989) and Louth et al. (1993) were included as the questionnaire matched the study purposes and the research context. As a result, a questionnaire of 17 items was used in this study and it has two categories: learners' attitudes toward writing class (Items 1-12) and toward collaborative writing (Items 13-17) (see Tables 3 and 4). Participants were asked to indicate their responses by choosing one of the five options having values ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Before responding to the questionnaire, the participants were informed about the anonymity and response confidentiality in the data collection process.

We then conducted semi-structured interviews (Jamshed, 2014) to explore the learners' perspectives on their learning engagement in ELMS-assisted collaborative writing. As Jamshed (2014) mentions that "semi-structured interviews are those in-depth interviews where the respondents have to answer preset open-ended questions" (p. 87). In the interview, the researcher collects open-ended data and explores participant ideas, feelings, and beliefs about a particular theme related to the research topic (DeJonckheere & Vaughn, 2019). By considering participants' English proficiency and contribution level in collaborative writing practices, we selected a sample (n=12) consisting of 3 males (3.53%) and 9 females (10.59%) learners for the interview. We coded them as participants P1- P12 and interviewed them synchronously using a Zoom application through three concurrent interview sessions involving 3-5 learners in each session. The guiding interview included the following questions: (1) 'What have you learned from ELMS-assisted collaborative writing?' (2) 'How was your engagement in carrying out ELMS-assisted collaborative writing?' and (3) 'What were the main challenges in carrying out ELMS-assisted collaborative writing, and how did you overcome them?'

The interviews were held in *Indonesian*, the learners' first language, to make sure that the questions were understandable. The interview for each participant took approximately half an hour and was Zoom-recorded and transcribed verbatim for data analysis.

Data Analysis

The responses gained from the questionnaire were analyzed statistically to answer the research questions. The percentage (%), mean (M), and standard deviation (SD) were used for the analysis. The analysis of the percentage was based on the

frequency of the participants choosing each of the five options on a five-point Likert scale. We then categorized the collected data according to the categories of the interval scale (see Table 2). We counted the percentage average of all statements to signify learners' attitudes toward writing class assisted with ELMS and their attitudes toward collaborative writing assisted with ELMS.

Table 2
Interval scale

Percentage (%)	Categories
80-100	Strongly Agree
60-79.9	Agree
40-59.9	Neutral
20-39.9	Disagree
0-19.9	Strongly Disagree

Data obtained from the interview were analyzed through a thematic analysis. Thematic analysis is known as a qualitative research method to uncover prominent themes in certain fields (Boyatzis, 1998; Riazi, 2016; Wiltshire & Ronkainen, 2021). In this study, thematic analysis was used to analyze qualitative data obtained from interviews to generate the most prominent themes regarding the learners' perspectives of learning engagement in ELMS-assisted collaborative writing in online learning. The steps to employ thematic analysis (Riazi, 2016; Wiltshire & Ronkainen, 2021) are as follows: first, we identified and analyzed recurring themes across individual interviewees. Second, making initial coding of the interviews is based on learners' perspectives of learning engagement in ELMS-assisted collaborative writing in online learning. Third, we identified significant themes relevant to the research focus. Finally, we discussed the themes under each research question together with data findings obtained from the questionnaire.

Four themes were generated dealing with learning engagement in ELMS-assisted collaborative writing: learners' engagement in sharing ideas for writing, providing feedback for revision, having a productive discussion through peer-to-peer learning, and developing creativity in writing. These four themes were then processed using an inductive qualitative analysis (Wiltshire & Ronkainen, 2021) to describe the results of the study. Thinking inductively (Wiltshire & Ronkainen, 2021) in this study involved moving away from descriptive statements of the participants in data sets about their perspectives on learning engagement in ELMS-assisted collaborative writing.

Finally, we triangulated quantitative findings with qualitative findings during the process of interpreting the results. For the validity and reliability of the qualitative analysis process, we applied some methods as follows: elaborate how we come up with findings by showing the detailed data, describe our role in the process, reflect diverse opinions, and use triangulation of methods of data collection (Bogdan & Biklen, 1998; Creswell, 2012).

Results

The EFL Learners' Attitudes toward Writing Class and Collaborative Writing Assisted with ELMS

Attitudes toward Writing Class Assisted with ELMS

The EFL learners' attitudes toward writing class assisted with ELMS are presented in Table 3. It indicates that learners demonstrated their positive attitudes toward writing class assisted with ELMS. It is summarized that they agreed to the statements with a high percentage (75.58%, M=3.78, SD=0.67) on average.
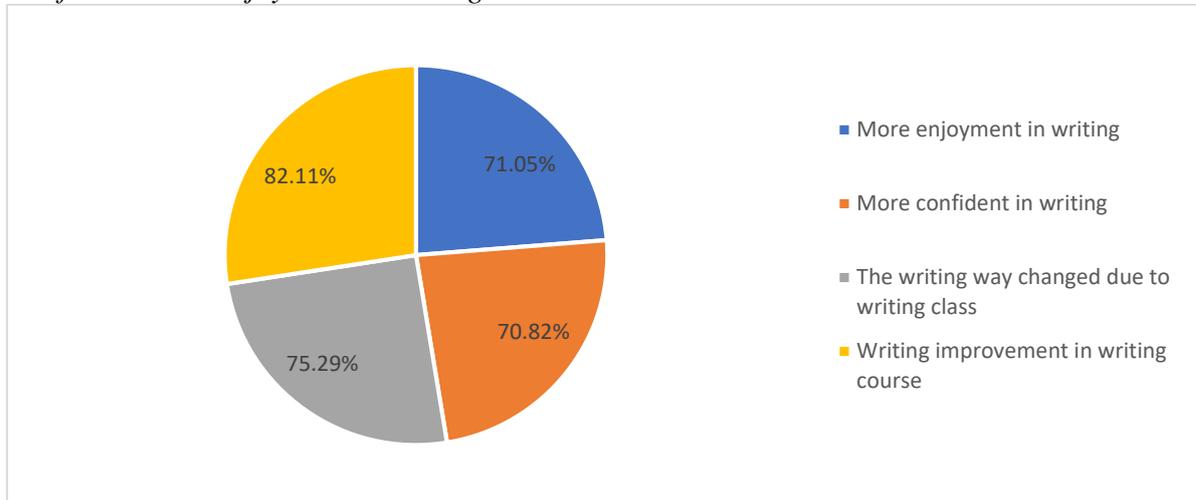
Table 3
Attitudes toward writing class assisted with ELMS

No.	Items	Mean	SD	Percentage (%)	Category
1.	I enjoy writing more than I did before this course.	3.55	0.76	71.05	Agree
2.	I feel more confident about my writing than I did before this course.	3.54	0.80	70.82	Agree
3.	Due to class, I've changed the way I write.	3.76	0.68	75.29	Agree
4.	I feel this writing course has improved my writing.	4.11	0.64	82.11	Strongly Agree
5.	I've learned a lot about the whole writing process.	3.84	0.57	76.70	Agree
6.	I've learned a lot about generating ideas for a paper.	3.78	0.59	75.52	Agree
7.	I've learned a lot about how to revise.	3.75	0.63	75.05	Agree
8.	I have a better sense of writing for an audience than I did before the course.	3.58	0.70	71.52	Agree
9.	What I've learned about writing in this course will help me with my future occupation.	4.01	0.66	80.23	Strongly Agree
10.	The way this class was taught was helpful.	3.93	0.67	78.58	Agree
11.	I'd like my next writing course to be taught the way this one was.	3.73	0.66	74.58	Agree
12.	I'd recommend this particular class to my friends who have to take English.	3.78	0.73	75.52	Agree
	Average	**3.78**	**0.67**	**75.58**	**Agree**

Table 3 shows that the EFL learners had positive responses to items 1, 2, 3, and 4. Many of the learners (71.05%, M=3.55, SD=0.76) agreed that they enjoyed writing practices more than they did before this writing class. In the writing class, many learners (70.82%, M=3.54, SD=0.80) also felt more confident in writing practices than they did before the essay writing course. Due to the enjoyment and comfortable writing class assisted ELMS, about three-fourths of learners (75.29%, M= 3.76, SD=0.68) have changed how they were writing in the previous writing class with the new environment of the writing class they enrolled in. Moreover, a very high percentage of learners (82.11%, M=4.11, SD=0.64) strongly agreed that the writing class activities enhanced

their writing skills since they enjoyed the class with a comfortable writing atmosphere. The brief visual elaboration is shown in Figure 2.

Figure 2
Confidence and enjoyment in writing class assisted with ELMS

The EFL learners also have positive attitudes towards the writing process during writing class assisted with ELMS. They agreed to items 5, 6, 7, and 8 (see Table 3). More than three-fourths of learners (76.70%, M=3.84. SD=0.57) have learned the writing process in writing class, beginning from generating ideas to finalizing writing an essay in small groups. About three-fourths of the learners (75.52%, M=3.78, SD=0.59) have learned idea generation for writing essay drafts. In revising the draft, about the same number of learners (75.05%, M=3.75, SD=0.63) have learned to revise drafts with the instructions given by the teacher. Therefore, many learners (71.52%, M=3.58, SD=0.70) produced their writings and have better essays for readers than those before the class due to the writing process (see Figure 3).

Figure 3
*Writing process in writing class assisted with ELMS*
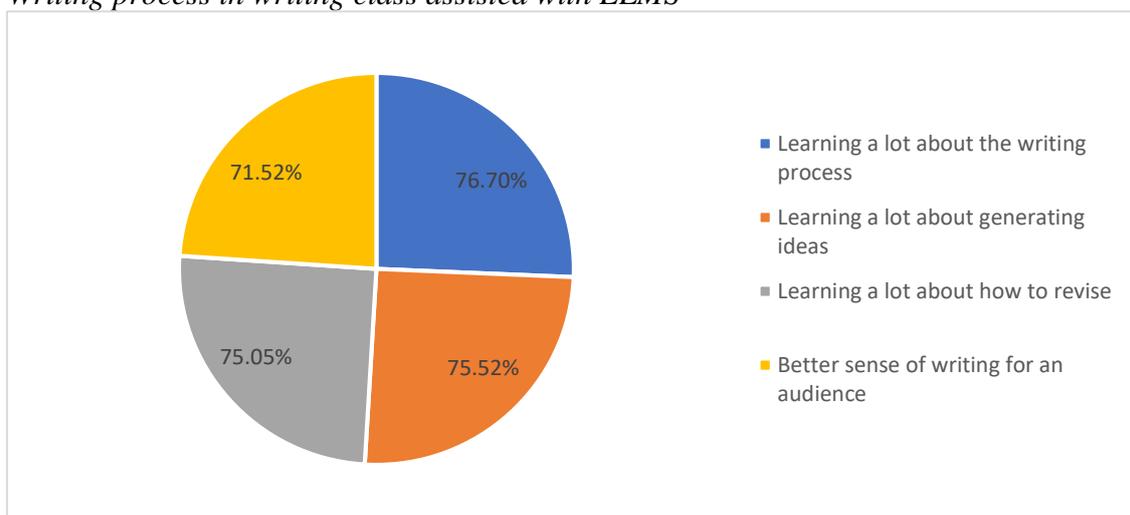
The result of the analysis of the learners' attitudes toward the writing process is similar to the results of the interviews. The writing process in writing class assisted them a lot in writing a five-paragraph essay. For instance, they have learned a lot from their peers through the fruitful experience in the revision step when giving feedback on their drafts. As stated by a participant,

> By giving feedback to each other in a small group on the parts of introductory, body, and concluding paragraphs in [the writing process], I can see my peers' draft in my small group…Due to incomplete sentences in the introduction, my draft was revised as suggested, and so did my peers' drafts. (P11)

In addition, the writing class assisted with ELMS benefited the EFL learners as they responded positively to items 9, 10, 11, and 12 (see Table 3). As presented in Figure 4, based on the learners' responses, a very high percentage of learners (80.23%, M=4.01, SD=0.66) strongly agreed with the statement that learning from the writing course would help them for future occupations. To the rest statements, learners (78.58%, M=3.93, SD=0.67) asserted that the way the class was taught by the teacher helped write a five-paragraph essay. The teacher-led them from writing theory into practice in writing class. For that reason, about three-fourths of the learners (74.58%, M=3.73, SD=0.66) admitted that they would like their next writing classes to be taught the same way as the writing class was. Therefore, about three-fourths of the learners (75.52%, M=3.78, SD=0.73) learners would recommend the particular class as a writing class to their peers who have to take English as their major.

Figure 4
Benefits of writing class assisted with ELMS
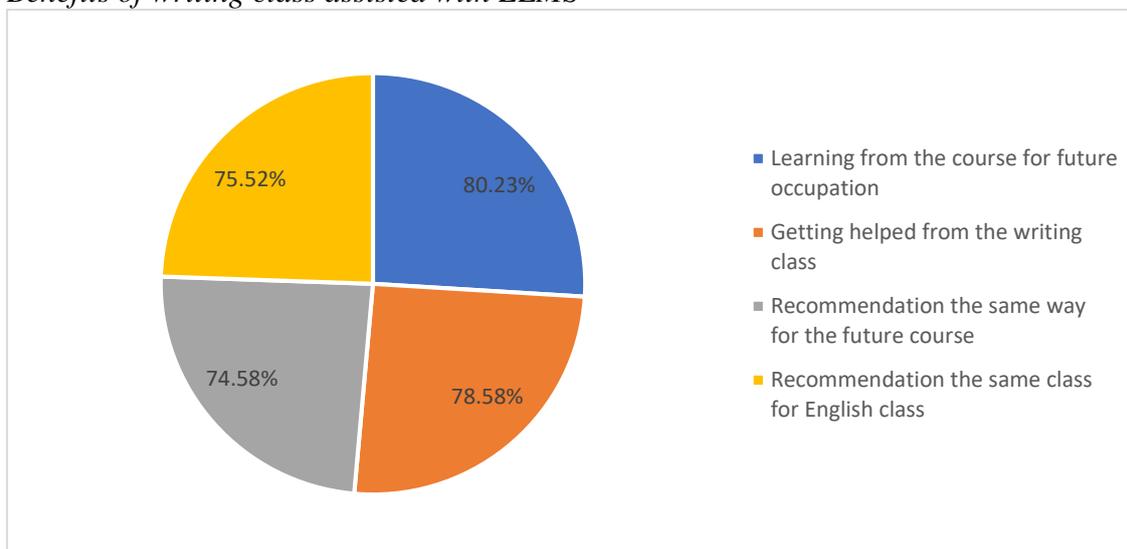
These findings are confirmed by the interview data revealed by the participant who said,

> … First time, I felt that Edmodo provides easy access for collaborative writing in a small group. It also had an impact on me. So, I can exchange ideas when I

write an essay. My peers in the small group can also provide feedback to improve my writing. (P4)

Attitudes toward Collaborative Writing Assisted with ELMS

The EFL learners' attitudes toward collaborative writing assisted with ELMS are shown in Table 4. It shows that learners expressed their positive attitudes toward ELMS-assisted collaborative writing. It is summarized from learners' responses that they responded to the statements by "agree" with a high percentage (79.15%, M=3.96, SD=0.66) on average.

Table 4
Attitudes toward collaborative writing assisted with ELMS

No.	Items	Mean	SD	Percentage (%)	Category
13.	Having others evaluate my writing helps me.	3.94	0.67	78.82	Agree
14.	Discussing my writing with others is useful.	4.11	0.66	82.11	Strongly Agree
15.	Learning to write in groups was a positive experience.	4.00	0.62	80.00	Strongly Agree
16.	Writing in groups helped me learn to write for other people.	3.95	0.71	79.05	Agree
17.	I liked group writing the more I used it.	3.79	0.66	75.76	Agree
	Average	3.96	0.66	79.15	Agree

As shown in Table 4, the EFL learners responded positively to items 13, 14, 15, 16, and 17 regarding their attitudes toward collaborative writing assisted with ELMS. As depicted in Figure 5, learners (78.82%, M=3.94, SD=0.67) agreed that having others evaluate their essay draft in collaborative writing activities assisted with ELMS could help them a lot for better writing essays. Regarding group discussion, a very high percentage of learners (82.11%, M=4.11, SD=0.66) confirms that discussing their writings with others during collaborative writing practices in small groups was useful for writing a five-paragraph essay. Moreover, learning to write a five-paragraph essay in small groups determined by the teacher using the grouping feature was a positive experience for learners (80.00%, M=4.00, SD=0.62). These findings were in line with interview results. A participant shared a view about ELMS-assisted writing collaborative,

"... I got a lot in this small group in the way of writing an essay correctly. It makes me easier to write the essay" (P12).

Furthermore, learners (79.05%, M=3.95, SD=0.71) agreed that a small group helped them learn to write a five-paragraph essay. Finally, learners (75.76%, M=3.79, SD=0.66) claim that they liked group writing more than they used it before. These findings fit the result of the interviews. A participant reported,

I have learned a lot in this small group on how to write an essay correctly. [Collaborative writing] makes me easier to write. We can exchange opinions and thoughts in the small group for writing [improvement]. (P12)

The participants clearly stated that they could share ideas with peers in the same group when implementing the writing process during collaborative writing practices to produce quality essays. The magnitude of the learners' responses is shown in Figure 5.

Figure 5

Attitudes toward collaborative writing assisted with ELMS
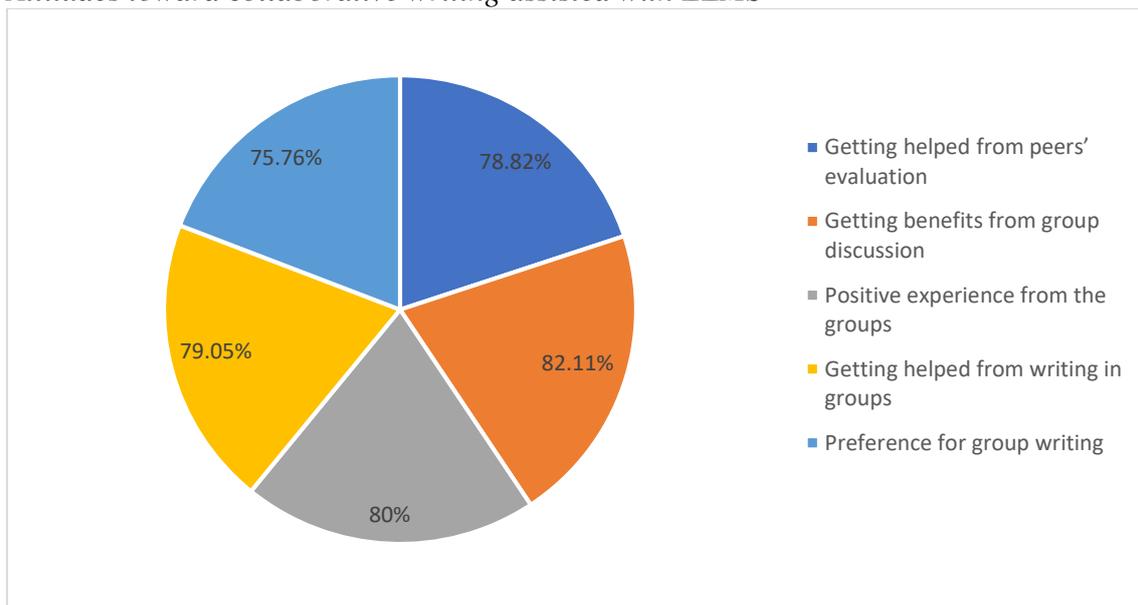
The EFL Learners' Learning Engagement in ELMS-assisted Collaborative Writing

We present this finding by providing four emerging themes composed of the real practices of the participants during ELMS-assisted collaborative writing.

Sharing Ideas for Writing

The EFL learners expressed their learning engagement in ELMS-assisted collaborative writing to share ideas for writing. It appeared when the writing process began from prewriting to revising the draft of a five-paragraph essay. They began sharing ideas in small groups at writing an introduction part covering the hook, background information, and thesis statement. As said by a participant in an interview,

So, I can exchange ideas, for example, when I write an essay introduction. I shared [my draft] in a small group, and my peers can also give opinions on possible strengths or weaknesses that I can learn more about in making an essay draft for my good essay format (P4).

Other participants augmented the same ideas by sharing their thoughts for a better essay draft. As expressed by P9, "My peers' ideas helped my essay writing, and it was really helpful." Also, a participant said,

> So, [we] exchange ideas [in a small group]. If something [the draft] is wrong, we correct it together. For example, I submitted an introductory paragraph assignment by posting it in a small group, and then my peers read my work and gave their ideas on my draft. (P11)

The participants asserted that they could exchange ideas in small groups at the beginning of the writing introduction. Their peers can read for evaluating essay drafts and give opinions on the content and organization toward its strengths and weaknesses. By sharing ideas in groups, learners-writers have learned a lot from idea-sharing to make a good essay and improve writing.

Providing Feedback for Revision

Feedback activity in small groups affected learners' learning engagement in ELMS-assisted collaborative writing. The feedback provided by peers in a small group is intended to assist their peers in draft revision. Providing feedback for revision was applied in the writing process, beginning from writing the draft to revising and editing the draft. A participant mentioned,

> My learning engagement [in collaborative writing] was when my friends posted their drafts in the small group of Edmodo, and then I gave feedback on the drafts. (P1)

In writing an essay, learners worked together to produce their essays. From the activities, learners expressed the benefits of engagement in collaborative work. Learners benefited from the feedback activities in terms of how peers worked intentionally in providing their feedback. As said by P9, "Yes, I can handle [revising the draft] because of their feedback, Sir." Another participant expressed,

> Thanks, God. It is useful, Sir. I got [feedback] from peers, and I gave feedback [on the drafts] in my group to improve [quality of] their essays. (P6)

The participants clearly expressed the benefits of feedback activity in collaborative writing. Feedback from peers was useful for improving essay quality. Through ELMS with the easy access facility for providing feedback, learners got impacts from peers' feedback for better writing production.

Having Productive Discussion through Peer-to-Peer Learning

The EFL learners asserted that their learning engagement in ELMS-assisted collaborative writing emerged from productive discussion through peer-to-peer learning in small groups. In the group, they discussed something relevant to the topic of the drafts posted by peers. As mentioned by P12, "… we could exchange opinion and think [in peer-to-peer learning] in a discussion in the small group, Sir." A participant (P10) said, "Yes,

… they also have questions to peers too [in a discussion]. Also, P11 reported, "… and then we were active in a small group for having a discussion or making question and answer."

In the discussion, learners were concerned about the parts of the essay structure, such as the introductory, body, and concluding paragraphs. They discussed something incomprehensible. All group members engaged in productive discussion. As said by P10, "…other friends were also involved in the discussion." Another participant stated,

> Yes Sir, there is [a rising topic]. If I don't understand the parts [of the essay structure], I ask my friends to discuss them in the group. For example, a part of the body paragraph. (P1)

The participants clearly stated that they get engaged in discussing the arising topic, including the incomprehensible parts of the essay structure and sentence and paragraph constructions. Through the productive focused discussion, learners-writers come up with good results in constructing a five-paragraph essay.

Developing Creativity in Writing

The EFL learners took part in developing creativity in writing skills to get engaged in learning activities during ELMS-assisted collaborative writing practices. Learners' learning engagement appeared when they creatively developed writing skills in small groups. As asserted by a participant (P9), "They [my peers] are active learners, and they often made something creatively in the practical way of making an essay through the writing process."

Another creativity development for writing skills is that they intentionally identified writing mistakes when analyzing their peers' drafts. The statement of this activity was as asserted by some participants,

> Yes, I also help [my peers] identify mistakes in the essay draft. If the essay contents are not clear and there is something that doesn't make sense, I'll give some advice. (P6)

> I identify and analyze each of my friends' essay drafts posted on Edmodo. While analyzing their drafts, we also know the shortcomings in our essays. So, I can compare what is missing in their drafts to my drafts, and then I directly give them advice. (P5)

As presented in the excerpt, the participants identified the mistakes of their peers' drafts. After identifying the mistakes, they gave some advice for revision. Also, the participants creatively developed their writing skills by comparing peers' draft shortcomings to those with their drafts, and they directly provided advice for correction. During the collaborative writing in small groups with creativity development in writing skills, they get engaged in English writing learning and enhanced their writing skills.

Discussion

This study revealed the Indonesian EFL learners' positive attitudes towards ELMS-assisted collaborative writing. The results are similar to the previous studies by Al-Khatiri (2015) and Ma'azi and Janfeshan (2018). Learners demonstrated their positive attitudes toward writing class assisted with ELMS. The results are in line with the studies showing learners' positive attitudes toward writing practices in Edmodo that contributed to pedagogical implications in EFL writing class (Ma'azi & Janfeshan, 2018; Safdari, 2021) and to bring learners from personal communication in face-to-face interaction to collaborative environment in online learning (Al-Khatiri, 2015). However, the results seem to be a little different from a previous study showing learners' positive attitudes expression (Cobanoglu, 2017). They were different attitudes toward collaborative writing in learning mode. The previous study displayed learners' positive attitudes in the blended learning mode, but the present study showed their positive attitudes in the online learning mode. Based on the findings, we can suggest feature research to emphasize more on the use of practical learning experiences for online collaborative writing. This effort should be applied as viewed from the writing pedagogical concept. As recommended by Chen et al. (2022), fostering learners to practice learning in online collaborative writing should be applied in the view of writing pedagogical design.

The EFL learners' positive attitudes were portrayed from their expression of attitudes toward ELMS-assisted collaborative writing. It was shown from a high percentage of their responses towards writing class and collaborative writing (see Tables 3 and 4). In relation to the high response in terms of feeling self-confident and enjoyment, learners demonstrated more enjoyment in writing practice assisted with ELMS than before joining the class. Learners are more confident when writing an essay in online learning, and they changed to the new writing practice environment for writing success. This result confirms research findings by Chen and Yu (2019), showing that writing practices in collaborative writing have positive emotional effects such as reducing stress and increasing self-confidence. Meanwhile, referring to the high response in the writing process, learners expressed providing feedback on peers' drafts in the revising stage. Learners revised the drafts as suggested by peers in small groups. As a result, their essay draft quality in writing aspects improved. This finding is in line with the concept of the writing process during web-based collaborative writing practice that impacts writing performance in the areas of content, organization, and language use (Rahimi & Fathi, 2021). In addition, learning how to write an essay in collaborative writing positively affects learners' learning success. This result confirms Hosseini et al.'s (2020) idea that learners' attitudes have been considered significant variables to portray learners' success in technology-based collaborative writing learning, such as enhancing writing skills. Moreover, it agrees with the idea of Zhang (2022) that collaborative writing greatly affected the quality and quantity of learners learning to write. This study further stresses more on the technology application in the practices of collaborative writing due to its strengths for learners' writing performance.

Justification of the benefits of the writing class was expressed in EFL learners' high responses. Learners made an obvious statement of the benefits. They got a fruitful impact in exchanging their ideas with others in small groups for essay writing development. Their writing quality was enhanced after feedback activities. This result confirms the previous study that using the facility of small groups created by the teacher, learners can share information and knowledge collaboratively in collaborative writing learning (Anwar, 2021). However, Rahimi and Fathi (2021) have pointed out that it is

less effective for some learners with a low level of writing proficiency, providing fewer contributions of the group members to collaborative writing assignments. This study further emphasizes the necessity of providing more contributions to sharing ideas and training on sharing ideas to others in the group of ELMS-assisted collaborative writing practice.

Moreover, the EFL learners expressed high positive responses to writing in small groups facilitated by ELMS during collaborative writing practices. In the groups, learners get helped in the process of writing a five-paragraph essay. They could share ideas with others in the same group to provide feedback on the drafts. Thus, writing in small groups led to easily constructing and producing better essays. Previous studies have indicated that collaborative writing increases the quality of learners' written texts with different improvement elements due to available room for thinking ideas and avoiding the same mistakes (Chen & Yu, 2019). As also confirmed by Moonma and Kaweera (2022), in collaborative writing learners are guided to actively practice critical thinking by analyzing, evaluating, and creating written texts. The present study further suggests EFL learners share ideas in the process of written-text production in the form of essays in collaborative writing practice.

This study also showed that the EFL learners were actively engaged in the writing learning within ELMS-assisted collaborative writing. The results are similar to the previous research showing positive social impacts of collaborative writing, such as writing engagement and a conducive learning environment (e.g., Chen & Yu, 2019; Soyer et al., 2016). For more writing technical aspect contribution, collaborative writing activity socioculturally affected learners with more emphasis on their writing accuracy (Le, 2022). Focusing on using online collaborative writing, Chen et al. (2022) confirmed that learners' social and cognitive engagement in learning could be improved. Learners' learning engagement is portrayed from the expression of their learning engagement in ELMS-assisted collaborative writing practices. Their learning engagement was shown by sharing ideas for writing. During the writing process in small groups, learners analyzed their peers' drafts in essay structure. By so doing, they got new ideas for the exchanges in small groups. It is one of the interesting ideas for ELMS-assisted collaborative writing practice in which new ideas can be found when analyzing peers' drafts. This result confirms a study by Chen and Yu (2019) showing that collaborative writing also provides chances and a platform for sharing ideas to solve writing difficulties. The idea of this study further emphasizes collaborative writing activities with more practice in actively sharing ideas with peers for learning engagement.

Dealing with learners' engagement in providing feedback for revision, learners are concerned with feedback provision on their peers' drafts in the writing process within ELMS-assisted collaborative writing. Learners actively engaged in writing learning in small groups by posting the drafts and giving feedback on their peers' drafts. This result is supported by Asmara's (2021) study reporting that learners engaged in collaborative writing and get motivated to work on writing when providing feedback on peers' works. Moreover, learners engaged in productive discussion through peer-to-peer learning during collaborative writing practices. In a productive discussion, learners exchanged opinions and thoughts on the draft content through peer-to-peer learning in small groups by asking peers active questions and answers. This result confirms the previous research indicating that ELMS provides opportunities for learners to interact, collaborate with others, develop creativity, and communicate productively through peer-to-peer learning

in collaborative writing practice (Altunkaya & Ayranci, 2020; Anwar, 2021; Ma'azi & Janfesha, 2018). In this case, we suggest EFL learners get more engagement by providing more useful feedback in the active discussion activities in peer-to-peer learning.

In addition, creativity development of writing skills is manifested as the EFL learners' learning engagement in ELMS-assisted collaborative writing. It made clear that learners expressed their creative development of writing skills through understanding the theory of essay writing into practice. They were active in developing writing skills through the writing process during collaborative writing practice in small groups. By so doing, learners get engaged in the activities for developing their writing skills. This result can be elaborated by the necessity of the writing skill development in the writing process when it is facilitated with Edmodo as an online learning platform with writing methods for learners' engagement in writing learning (Purnawarman et al., 2016). By engaging learners in online collaborative writing with the creative development of writing skills, they get facilitated to transform their thinking and development skills to L2 writing academic literacies (Li & Yang, 2022). The current study further recommends EFL learners develop more creativity in writing skills by actively engaging in writing learning engagement through the process of online writing collaborative practices.

Conclusion

The present study investigated Indonesian EFL learners' attitudes towards ELMS-assisted collaborative writing and their perspectives regarding their learning engagement in ELMS-assisted collaborative writing in online learning. The study found that learners hold positive attitudes toward collaborative writing practices. They actively engaged themselves in writing learning during collaborative writing practices in terms of sharing ideas for writing, providing feedback for revision, having a productive discussion through peer-to-peer learning in groups, and creativity development of writing skills. However, two factors might limit the generalization of the results. First, the questionnaire employed in this study was developed by previous researchers with limited evaluation items for collaborative writing as the study concerns. Second, the data regarding learners' learning engagement were only gained from the interviews.

Based on the findings, to further strengthen this study, future research should emphasize employing questionnaires with more evaluation items for collaborative writing, particularly for technology-assisted collaborative writing. Employing other data collection techniques such as observation is suggested to enrich the data dealing with learners' learning engagement in collaborative writing. Moreover, it is recommended to EFL teachers apply ELMS-assisted collaborative writing practices in online learning due to the learners' positive attitudes demonstration. EFL teachers are also encouraged to provide learners with various collaborative writing activities which can engage learners in ELMS-assisted collaborative writing practices as it is the potential online learning management system incorporated in collaborative writing.

Finally, the study provides pedagogical implications regarding new insights and fruitful reflections on the successful ELMS-assisted collaborative writing practices in online learning, and how learners' positive attitudes and learning engagement could contribute to the successful ELMS-assisted collaborative writing practices in online

learning for the enhancement of their writing skills in Indonesian EFL classes and other settings as well.

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