The Effects of Collaborative Process Writing Approach on Thai EFL Secondary School Students' Writing Skills

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ABSTRACT

This study aims to examine the effects of the collaborative process writing approach on Thai EFL secondary school students' writing skills and investigate their attitudes towards the use of the collaborative process writing approach to developing their writing skills. The participants were sixty-two students studying at a Thai secondary school. This study employed a mixed methods research design. The research involves quantitative and qualitative methods of data collection. Research instruments were 1) the pretest and posttest, 2) questionnaires, and 3) the focus group interview. The results showed that collaborative writing can improve students' writing skills as the scores from the posttest were significantly higher than those of the pretest. Moreover, students had positive attitudes towards collaborative writing as they could share various ideas and help one another develop their written tasks. The results from the interview also showed

that the writing process could be a guideline for making a good paragraph in terms of organization, coherence, and accuracy.

Keywords: writing skills, writing process, collaborative writing, Thai EFL students

Introduction

Writing is claimed by scholars (e.g., Hyland, 2003; Kroll, 2001; Matsuda, 2012; Silva & Matsuda, 2002; Schoonen, 2019) as one of the integral skills in learning a second language (L2). Since English became a dominant language in business, commerce, science, medicine, education, and many other key areas, there has been an increasing interest in L2 writing which has become a basic requirement for interaction with the global community (Shukri, 2014). Writing is an essential academic skill necessary to be developed to succeed in education and future careers (Boonpattanaporn, 2008; Grabe & Kaplan, 1996). L2 students are therefore trying to pursue opportunities to improve their writing skills.

Writing is an essential skill for language production (Hyland, 2003). However, it is commonly regarded as the most difficult skill, especially in the English as a foreign language (EFL) context where students face many challenges in writing namely: lacking vocabulary, poor grammar, poor spelling, and student's readiness (Fareed et al., 2016). There are several problems with writing by EFL students. To illustrate, Martínez et al. (2020) argued that EFL students often lack a basic understanding of sentence, paragraph, and essay structure. As a result, this complex style of writing can cause anxiety, demotivation and even discourage the student. Therefore, forging a negative attitude towards writing.

Writing problems are also found among Thai EFL students (Nopmanotham, 2016; Seensangworn & Chaya, 2017; Tanmongkol et al., 2020). Wongsothorn et al. (2003) stated that when discussing Thai students, the skill which needed the most improvement was writing. Many Thai students struggle to write coherent paragraphs or essays. Nopmanotham (2016) indicated that Thai students, including secondary-level students lack writing experience and face problems with grammar, vocabulary, ideas, sentence structure, and organization in writing. As a result, the majority of EFL students including Thai students find it difficult to write paragraphs or essays.

Many scholars stated that writing is not always easy. Even skillful writers somehow have difficulties when starting to write and encounter problems during the writing process (Rahimi & Zhang, 2018; Rostamian et al., 2018). Arici and Kaldirin (2015) suggested that if EFL students are not

successfully guided in certain steps of writing, they will feel that the writing is difficult and complicated. In this regard, to solve EFL students' writing problems, steps in the writing process should be appropriately designed and provided to students through meaningful classroom activities. When students go through each step, they should be continuously encouraged to plan, draft and revise. In this way, they will know what kind of written product is expected of them. And in turn, their writing skills will most likely improve (Graham & Sandmel, 2011).

Several approaches have been used in language teaching. Collaboration is one of the teaching approaches. Collaborative writing has been employed in previous studies as prompts to enable pairs or groups to interact intentionally and compose a formal paper together (Cumming, 2012; Zhang & Chen, 2022; Zhang & Plonsky, 2020). Empirical evidence about the benefits of collaboration in L2 writing has been provided by a large body of research. For example, collaborative writing is a way to foster reflective thinking, especially if students are engaged in the act of explaining and defending their ideas to their peers (Chen, 2019; Khodabakhshzadeh & Samadi, 2017; Zhang, 2018). According to Wahyuni (2014), in collaborative writing, students with high proficiency can assist friends to improve their understanding of writing organization, word choice, spelling, and grammar. Bueno-Alastuey and Martinez (2017) also noted that a higher number of participants that collaborate together on a chosen subject can lead to a much better end product in terms of accuracy, fluency and syntactic complexity. Furthermore, collaborative learning fosters students' positive attitudes towards learning experience, by interacting with peers and maximizes motivation as they become relaxed in the atmosphere of sharing the additional responsibility through their own learning (Johnson & Johnson, 2006; Nichols & Miller, 1994; Oskoz, 2010; Slavin, 2011).

As can be seen from the aforementioned studies, collaborative writing has become prevalent in EFL writing instruction in recent years. However, the comparative studies on collaborative writing have provided contradictory results it has a more positive effect than individual writing. Compared with individual writing, collaborative writing is better for enhancing students' grammatical accuracy in their writing production, which leads to a better understanding of lexis related problems (Wigglesworth & Storch, 2009). However, Zabihi and Rezazadeh (2013) indicated that the writing fluency of students in a collaborative group was not significantly improved compared to those who wrote individually. Moreover, the instructors showed concerns about the fairness and reliability of assigning group composition and whether each student equally participated in writing activities (Strauss & U, 2007). There are also time limitations with collaborative writing as it requires more interaction when constructing texts (Dobao, 2012). Therefore, it might not

be feasible when concentrating on multiple skills and objectives which have a time limitation.

To maximize the advantages of collaborative writing for Thai EFL students, the investigation of its effects on students' writing skills needs to be comprehensively explored. Previous studies have shown that little research has been carried out to examine its effects on students' writing in the Thai EFL context, and most of them have been investigated at the university level and only in some steps of the writing process (e.g., prewriting) (McDonough et al., 2018). To fill in the research gaps, this study aims to examine the effects at different steps of the writing process. The study also investigated Thai EFL students' attitudes towards the use of collaborative writing in developing their writing skills. Therefore, two research questions were addressed to reflect the purposes of this study as follows:

1) What are the effects of the collaborative process writing approach on Thai EFL secondary school students' writing skills?

2) What are Thai EFL secondary school students' attitudes towards the use of the collaborative process writing approach to developing their writing skills?

Literature Review

Writing Process

The writing process refers to a systematic procedure that includes defining the audience, planning, drafting, and revising (Goldstein & Carr, 1996). The nature of the process is recursive (Campbell, 1998) as the writers go back and forth with each step to develop their end product. There are many advantages of employing the writing process in the classrooms. Brown (2001) stated that the writing process can help students manage writing by giving them a chance to think as they write. Martinez et al. (2020) also found that this instruction can help students pay more attention to the quality of the texts such as topic sentences and a more coherent structure; thus, their writing performance increased.

The models of the writing process have been continuously developed by many scholars (e.g., Flower & Hayes, 1981; Galbraith, 2009; Grenville, 2001; Kellogg, 2008; Murray, 2004; Williams, 2005). These models consist of several developmental steps that are not linear but recursive or cyclical manner. Several studies employed the writing process models in developing students' writing skills as follows.

For example, a model study by Imelda et al. (2019) has been developed from previous studies of Grenville (2001) and Murray (2004) that involve five steps, namely: pre-writing, planning, drafting, revising, editing

and publishing. These steps were later conducted in three sessions (1) planning which requires students to work in pairs, (2) drafting and revising which allow students to work individually, and (3) editing and publishing which ask students to work individually. The results showed that the process of this writing approach was effective in improving the students' writing skills and providing them with the opportunity to engage confidently in their writing composition. In the Thai context, Dokchandra (2018) adapted this model from Diliduzgun (2013), who investigated the effects of the process writing approach on English essay writing performances of Thai university students. The process of writing mainly incorporates four basic writing steps: planning, drafting (writing), revising (redrafting), and editing, and three other steps namely responding, evaluating, and post-writing. The findings showed that the writing process improved students' thinking process and text analysis in brainstorming activities. As a result, students' writing performance was significantly improved because of text analysis, and students' awareness was also developed by planning and organizing written texts.

In this study, Diliduzgun (2013)'s model of the writing process was used with Thai EFL secondary school students as this model has been proved and qualified as a usable model in the Thai EFL context. Four basic writing steps (planning, drafting, revising, and editing) were mainly used in the study.

Argumentative Writing

Arguments refer to the process which makes people think clearly about themselves and others. Arguments start from a private viewpoint to a clear claim against publicity in speech or writing. In this sense, arguments contain a two-part structure: the statement of opinion and its supporting reasons in order to unify the statement (Crusius & Channell, 1999).

Argumentative writing is defined as scientific papers which contain arguments, explanations, proof, or reasons in which the writers argue for certain ideas and attempt to convince the readers to adopt the writers' point of view (Abbas, 2018; Permata, 2019; Oshima, 2004). In the same way, Sari (2019) viewed argumentative writing as scientific writing which discusses an issue or contentious issue in society. The writers need to state their own strong pro and con opinions that are being discussed and are an important part of argumentative writing. The purpose of argumentative writing is to convince readers to change their initial position to be equal to the writers' position. Apart from convincing the readers, another purpose of argumentative writing is to oppose the writer's claims or to contradict others' claims (Saito et al., 2010).

Regarding classical guidelines, argumentative texts will then develop positive and negative arguments (pros and cons) following six main

components: introduction, issue explanation, an outline of the argument, proof, refutation, and conclusion (B.O.E., 2002). Firstly, the introduction may present the writers' main argument in two different ways: (1) stating the problems to be solved and not as a universal truth and (2) stating the suggestive and entertaining introduction to the theme through examples and references with the aims of attracting the readers. The introduction is required to gain the audience's sympathy instead of stating the general issues. Secondly, the explanation of the issue intends to clarify the ideas that help the writers to convince the audience to modify their opinions by making an effective discourse. Third, the outline of the argument requires the writers to establish the difficult points of the argument which must be presented in a concise, organized, and coherent way under the means of linguistic elements. The fourth component deals with presenting proof. To enhance the relevance of their arguments, the writers intend to support the main argument with contributions of the literary authorities on the theme, bibliographic references, and linguistic means. The fifth component involves refutation that establishes the main unacceptable ideas or the opposite thoughts which raise more interest to the audience. Finally, it is very important to conclude with a good summary of the opposite arguments which can be in positive or negative ways. This can be concluded in two different ways: universal truth or another contribution to the issue under consideration.

In the present study, argumentative writing was precisely guided to the students according to B.O.E. (2002) in terms of six components of argumentative writing at a paragraph level. The written products also require the argument towards the topic from any point of view positively or negatively.

Collaborative Writing

Collaborative writing is an approach in which two or more writers collaborate within a single text (Storch, 2019) Collaborative writing requires students to work together to plan, draft, reflect, and revise their composition (Zhang, 2021). Besides, collaborative writing is a mediate thought requiring EFL students to reflect on their language use and collaborate with one another in solving their language-related doubts (Storch, 2019).

Many scholars advocated the positive results of collaborative writing. Unlike individual writing when generating ideas, students can pool ideas together and receive feedback from their peers within groups (Yim & Warschauer, 2017). Azodi and Lotfi (2020) stated that when students edit their peers' writing texts, they can foster attention to grammatical constructs and enhance their language learning. As a group of editors, their writings tend to improve in terms of accuracy and written product. Collaborative writing

can help students engage in a community of equals who respond to each other's work and together create an authentic social context for interaction and learning (Such, 2021; Sundgren & Jaldemark, 2020; Zhang, 2021).

However, some limitations of collaborative writing have been found. EFL students may lack rhetorical experiences which means that they may focus heavily on sentence-level problems rather than ideas and organization (Felipeto, 2019; Storch, 2019). Moreover, peers are not trained teachers, and their comments may be vague and unhelpful, or even overly critical and sarcastic (Leki, 1990). Therefore, it is necessary to train students so that they will be able to improve their writing skills through the steps of the writing process in a collaborative manner.

Previous studies have shown that collaborative writing has beneficial results for students' writing improvement. However, according to McDonough et al. (2018), most of the studies have been carried out with university students and only in some steps of the writing process (e.g., prewriting). To fill the gaps, the present study, therefore, employed collaborative writing in each writing process (planning, drafting, revising, and editing) as an approach to improving students' writing skills in the Thai secondary school context.

Methodology

The research methodology is discussed in five sections: research design, participants, instruments, data collection, and data analysis.

Research Design

This study employed a mixed methods research approach to measure students' writing skills after collaborative writing was implemented throughout the writing process and to examine the students' attitudes towards collaborative writing in each writing process which affects students' writing development. This study also used the two-group pre-test and post-test design, which consisted of the control group and the experimental group. The effects of collaborative writing on students' writing skills were measured by using the pretest and the posttest. The statistical significance was at 0.05 level. Collaborative writing was implemented with the students in the experimental group and their attitudes were inspected during an interview after the posttest was completed.

Population and Participants

This study consisted of 145 eighth grade students including two programs: The Junior English Mathematics Science (JEMS) program and the regular program at a public school in a northeastern province of Thailand. The participants were aged 13-14, and they have been learning English for 12 years. The participants in this study included 62 students from two parallel classes studying in the JEMS program (Class 1: 30 students and Class 2: 32 students). This program focused on English in which students study more English lessons than in other regular program classes and the students' average score in English subjects in the JEMS program was higher than other pupils in regular program. Two target classes were sampled by convenience sampling because the researcher taught both classes the whole academic year. Class 1 was selected as an experimental group, and purposive sampling was employed to form collaborative groups. The final examination score from the previous semester was first ranked into three levels by the researcher. Then, the researcher let the students form a group of three by themselves. Class 2 was selected as a control group. The students in the experimental group were assigned to complete the writing tasks in groups, whereas the students in the control group were given the same tasks but were required to complete them individually.

Research Instruments

Pretest and Posttest

In this study, the pretest and the posttest were used to examine the effects of collaborative writing in the writing process on Thai EFL students' writing skills. Apart from paragraphs which students produced during the collaborative process writing instruction, the tests were administered at the beginning and the end of the course. Each test lasted one hour asking students to write an argumentative paragraph. The topic of the paragraph writing was designed based on the Thai basic education core curriculum (2008) for writing. The pretest topic was *"Students should be allowed to use phones in class."* The posttest topic was *"Online learning can replace face-to-face classes."* The topics of the two tests were different, but parallel. The students were required to write approximately 150 words in both the pretest and the posttest. This amount would be efficient for the raters to evaluate their paragraph on different writing aspects. To validate the content, the tests were evaluated by three university teachers who had more than ten years of experience in teaching English. The Item-Objective Congruence Index (IOC) was used to ensure validity in terms of the questions and the objectives of the study.

Questionnaires

The questionnaires were used to investigate the students' attitudes and problems they faced when using the collaborative writing process. The questionnaires in this study were adapted from Coffin (2020). All of them shared identical statements of 20 items and 4 clusters. The 4 clusters were the studied variables of the collaborative writing practice: self-contribution to teamwork, team collaboration, activeness of the learning environment, and an improvement in communication and problem-solving skills. The questionnaire statements were checked validity and reliability by three experts. In each step of the writing process, the students from the experimental group were required to complete the questionnaires which consisted of close-ended items in the form of a 5-point Likert scale and open-ended items. Three experts additionally double-checked the questionnaire's content validity. The try-out questionnaire was done before giving it to the collaborative group. The result of the reliability quality based on the coefficient Cronbach's alpha was 0.90.

Focus Group Interview

Before the study was implemented, the interview questions were evaluated by three experts using the IOC form to ensure validity. The focus group interview was conducted by the researcher to collect some qualitative information aiming to examine the further perspectives of the students who wrote collaboratively throughout the writing process. The interview was conducted after the posttest. Five collaborative groups from the experimental group were selected by convenience sampling. The students were asked to answer the interview questions using the Thai language to facilitate them. The interview was audio-recorded, transcribed, and translated into English.

Data Collection

Prior to data collection, ethical approval and permission from the university were sought and obtained. All the participants gave consent after they knew the purposes of the study. Data collection lasted 6 weeks (17 hours). Students studied for an hour three times a week. Additionally, the data collection was conducted online via Zoom Meeting due to the spread of the COVID-19 pandemic. Two groups were taught the same in terms of the component of argumentative paragraph writing and process writing. The major treatment assigned to the experimental group was collaborative writing as students were encouraged to work together in groups throughout the

writing process to accomplish the written tasks. The data collection was described in Figure 1 below.

Figure 1

Data Collection Procedure
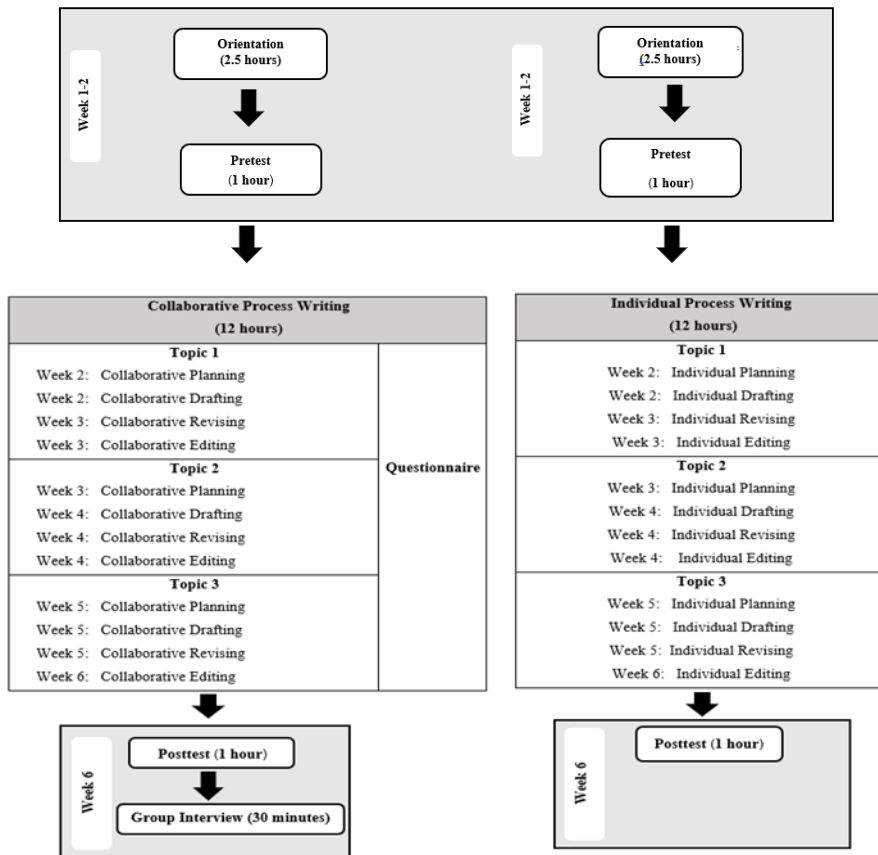
Data Analysis

The data analysis was done both quantitatively and qualitatively. The pretest and posttest were assessed with CTER writing scoring rubrics by Nakkaew and Adunyarittigun (2020) which was used as a tool to evaluate students' writing. The rubrics include six critical thinking domains, (1) Ability to write an introduction to gain readers' attention, (2) Ability to give reasons and evidence to support a claim, (3) Ability to state a counterargument and a refutation, (4) Ability to write a conclusion, (5) Ability to organize ideas in a

logical way, and (6) Ability to use word choice and sentence structures effectively. Then the pre-test and post-test scores were obtained from the written paragraphs and analyzed by the t-Test using the SPSS program to see whether the students' writing skills had improved. More data was obtained from the questionnaires and analyzed both quantitatively and qualitatively. The answers from the close-ended part were combined and computed to find mean (x̄) and standard deviation (S.D.), which represented the levels of agreement, or the levels of identical attitudes reported by the students. To analyze the open-ended questions, the data were transcribed and translated to English, then coded with respect to their topics and contents.

Results

The results are presented and discussed to address two research questions. The quantitative data from the pretest and the posttest were used to address the first research question. The qualitative data from the questionnaire and the focus group interview were used to address the second research question.

Effects of the Collaborative Process Writing Approach on Thai EFL Secondary School Students' Writing Skills

To answer Research Question 1, data obtained from the pretest and posttest were analyzed and presented below.

Table 1

The Paired-Samples T-test of the Experimental Group's Pretest and Posttest Means Scores

	N	Mean	Mean Different	S.D.	S.D. Difference	Std. Error Mean	*t*	df	Sig.
Pretest	32	15.31	-2.67	5.42	4.82	.96	-3.16	31	0.00
Posttest	32	18.00		4.15		.73			

The result of the correlation between the pretest and posttest was found that the correlation coefficient equals 0.52 and the p-value equals 0.00. The finding indicated that the pretest and posttest correlated and had significant statistics at 0.05 level.

Table 1 shows the test results of the experimental group. The mean score of the pretest was 15.31, and the standard deviation was 5.42. The mean of the posttest was 18.00, and the standard deviation was 4.15. The results

between the pretest and the posttest showed that the different mean scores were -2.67 which indicated that participants' writing p-value was equal to 0.00 which means that the pretest and posttest were statistically different at 0.05 level.

Table 2

The Paired-Samples T-test of the Control Group's Pretest and Posttest Means Scores

	N	Mean	Mean Difference	S.D.	S.D. Difference	Std. Error Mean	t	df	Sig.
Pretest	30	15.17	-4.01	4.54	4.98	.83	-4.48	29	0.00
Posttest	30	19.23		3.87		.71			

   The results between the pre-test and the post-test were found. The correlation coefficient equaled 0.31 and the p-value equaled 0.01. This showed that the pretest and posttest correlated and had significant statistics at 0.05 level.

   Table 2 shows the test results of the control group. The mean score of the pretest was 15.17, and the standard deviation was 4.54. The mean of the posttest was 19.23, and the standard deviation was 3.87. The mean scores between the pretest and the posttest were different (different value = -4.01). The results indicated that the participants' paragraph writing p-value equals 0.00 which means that the pretest and posttest were statistically different at 0.05 level.

Table 3

The Difference of the Average Score of Posttest between Control and Experimental Group

	N	Mean	S.D.	t	df	Sig.
Control Group	30	19.23	3.87	1.21	60	0.23
Experimental Group	32	18.00	4.15			

   The result of the variance of both groups by Levene's Test was 0.11 and the p-value was 0.75. This result showed that the variance of both groups was equal in the post-test scores which was not significantly statistically different at the 0.05 level.

   In conclusion, it was found that participants in both groups gained higher scores in the posttest. However, the control group had a higher improvement than the participants in the experimental group. Compared to

the experimental group, the control group spent far more time brainstorming, drafting, revising, and editing during the writing process. This might explain the disparity in the statistics above. When learning collaboratively, there might be some students in groups who did not engage with their teammates. Moreover, after receiving the feedback from their teacher, the control group spent their time reading, revising, and editing rather than arguing with their peers. As the result, their writing skills had vastly improved. On the other hand, even though the experimental group had interacted, shared ideas and constructed sentences, some of the students hadn't fully participated in the group discussion or the collaborative writing task.

Interestingly, after implementing the three topics before the post-test 16 students or (50%) from the experimental group and 23 or (76.7%) from the control group gained greater scores than before the pre-test. Even though the students from the control group achieved a higher score, the findings clearly showed that the students from the experimental group also improved their writing ability. Thus, it can be concluded that this process should be used in the future. To be more precise, writing in groups might cause students to lack experience in composing an argumentative paragraph, and they might subsequently have the difficulty in writing an argumentative paragraph in the posttest. As the reasons mentioned above, it can be concluded that the control group had more possibility to gain higher scores than the experimental group.

Furthermore, this study focuses on the collaborative writing process to compose argumentative paragraphs under six critical thinking domains.

The first critical thinking domain is the ability to write an introduction to gain readers' attention. After the writing rubric was explained by a teacher, students wrote a meaningful introduction. However, some students rarely use the rhetorical question as students jumped to stating pros and cons which were supposed to be in the central part of the writing.

> Extract 1: "Residence is an important factor in human beings. So, we should choose the right residence that makes us feel safe. First, …"

The second critical thinking domain is the ability to give reasons and evidence to support a claim. Students elaborated on the main ideas following the critical thinking domain and gave examples by using such as, for instance, etc.

> Extract 2: "…some people may not have opportunities to have grades for a career for example someone who does not has money to have educated makes it harder for them to find the jobs…"

The third critical thinking domain is the ability to state a counterargument and a refutation. Students could give a clear counterargument and its rebuttal. However, some groups forgot to rebut, and they somehow gave unclear and irrelevant statements to their counterargument.

> Extract 3: "Although it has many advantages such as it enables better management of natural resources, it made work comfortable, etc. (no rebuttal).... In conclusion, …"

The fourth critical thinking domain is the ability to write a conclusion. Students could give a clear summary by restating the ideas.

> Extract 4: "…., so, we can conclude that getting good grades doesn't always mean you have a bright future"

The fifth critical thinking domain is the ability to organize ideas in a logical way. Students did not have a problem with organizing ideas because the teacher provided a guideline to students on every topic, and the teacher also uploaded a file of writing rubrics that all the students could see and check. As a result, they could easily follow the writing steps.

> Extract 5: "First, it makes teenagers use social media too much. *(*supporting sentence*)* Today many teenagers use social media for more than half of their daily life…"

Lastly, the ability to use word choice and sentence structures effectively. Students utilized some transition words from what they have learned before. However, they still encountered difficulty in using correct grammar and vocabulary. Therefore, students could learn new vocabulary on the internet and the teacher's feedback until their writing improved.

> Extract 6: "In short, there is calm in the countryside. Although there is a little prosperity, there is a natural progress that cleans the air and makes us feel more relaxed when we go to live."

In summary, even though the teacher gave clear guidelines, there were still some parts missing. However, after the students had practiced more, the mistakes were minimized, which led to more organized and complete paragraphs.

Thai EFL Secondary School Students' Attitudes towards the Use of the Collaborative Process Writing Approach to Developing their Writing Skills

To answer Research Question 2, the results of students' attitudes towards the use of the collaborative process writing approach in developing their writing skills from the questionnaire and the focus group interview are presented below.

Results from the Questionnaires

The findings of students' attitudes towards the use of the collaborative process writing approach in developing their writing skills from the questionnaires are presented below.

Table 4

The Average of Students' Attitudes Divided into 4 Clusters towards the Collaborative Process Writing Approach

Statements	Planning		Drafting		Revising		Editing	
	M	S.D.	M	S.D.	M	S.D.	M	S.D.
Self-contribution	4.39	.71	4.40	.66	4.41	.65	4.39	.69
Team collaboration	4.39	.68	4.29	.65	4.44	.60	4.42	.64
Activeness of learning environment	4.33	.67	4.35	.67	4.38	.64	4.37	.66
Improvement in communication and problem-solving skills	4.37	.68	4.40	.67	4.44	.59	4.40	.67

Table 3 illustrates the mean scores of students' attitudes towards the collaborative process writing approach in each step of the writing of 3 topics. The results showed that among 4 steps of process writing, students most frequently used self-contribution in the revising step (M=4.41, S.D.=.65), while self-contribution was used the least in the editing step (M=4.39, S.D.=.69) and planning step (M=4.39, S.D.=.71). About team collaboration, it was the most frequently used in the revising step (M=4.44, S.D.=.60) while it was used the least in the drafting step (M=4.29, S.D.=.65). Additionally, in terms of the activeness of learning environment, the collaborative groups frequently employed in the revising step (M=4.38, S.D.=.64) while hardly employed in the planning step. Lastly, it turned out that collaborative groups gained improvement in communication and problem-solving skills,

particularly in the revising step (M=4.44, S.D.=.59) while it was the least found in the planning step (M=4.37, S.D.=.68).

In conclusion, it was explicitly shown that four clusters (self-contribution, team collaboration, activeness of learning environment, and improvement in communication and problem-solving skills) were mostly found in the revising step among the four steps of the collaborative writing process. The results indicated that collaborative writing was appropriate for the revising step the most because of the teacher's feedback, so it is possible that they have learned something from the teacher's feedback in terms of writing improvement, and they had something to discuss in groups together with their friends to develop their writing to the editing step.

In response to the open-ended part of the questionnaire, the advantages of collaborative writing towards writing skills and the problem found in each step were analyzed as presented below.

In terms of the advantages of collaborative writing, in the planning step, some students (n = 12) claimed that collaborative writing is useful for them because they got a chance to brainstorm various ideas with friends which could help them finish their tasks quickly. They (n = 7) also added that collaborative planning was a good guideline for the drafting step as they elaborated the main ideas in the planning table into a paragraph. Examples of students' statements are shown below.

> Student 1, Group 1, "…We help one another to plan our writing…"
> Student 2, Group 5, "…Collaboration can gather distinguished aspects from our teammates…"
> Student 3, Group 6, "…It's convenient and fast to finish the group task…"

In the drafting step, some students (n = 8) claimed that collaborative writing could promote teamwork participation as they helped one another think about what to write or search for the information and vocabulary. The following example statements are shown below.

> Student 1, Group 3, "…We searched for information…"
> Student 2, Group 5, "…We collaboratively wrote, looked for vocabulary and corrected them …"

In the revising step, students (n = 6) mentioned that they got a chance to collaboratively correct the mistake and improve the paragraph following the teacher's guide. Moreover, students (n = 8) stated that they were sparked by other's ideas and learned from their own mistakes. Students (n = 4) also

claimed that they got fewer mistakes every time they wrote. Examples of students' statements are as follows.

> Student 1, Group 3, "…We corrected some mistakes together…"
> Student 2, Group 4, "…We helped one another to look up vocabulary and revised our work following feedback resulting in a better paragraph …"
> Student 3, Group 5, "…We sometimes looked over our mistake, but I had the others correct it …"

In the editing step, students (n = 4) claimed that they could help one another edit their writing, and they listened to one another's various ideas and suggestions to improve their writing. Moreover, they (n = 11) found that helping one another edit could finish early and produce more efficient writing through collaboration. Examples of students' statements are shown below.

> Student 1, Group 3, "…We helped one another to edit after the teacher reflected on our work…"
> Student 2, Group 6, "…Collaboration elicited quality work as we helped one another improve our work …"

Apart from the advantages, the respondents also indicated some problems they encountered during collaborative writing. In the planning, some students (n = 10) claimed that they rarely shared opinions due to online learning as students communicated through Zoom meetings. Also, the internet connection occasionally interfered with communication. Moreover, collaborative writing took a long time in the planning step as they got different ideas and could not decide. In the drafting step, students (n = 5) claimed that the translation tool they used was not always accurate as students needed to double check the grammar structure. In the revising step, students (n = 6) claimed that they knew a limited amount of vocabulary and grammar structure, so it took time for them to construct sentences and choose suitable vocabulary to use in the paragraph. However, the teacher's feedback could help them improve their next draft. In the editing step, students (n = 3) got the same problem as the other previous step as they lacked communication due to online learning, and they (n = 5) found that constructing sentences was somehow hard for them.

Results from the Focus Group Interview

This section provides the results from the interview in terms of (1) the benefits of collaborative writing to the writing tasks (2) the problems found in each step of the writing process and solutions, and (3) suggestions

for collaborative writing. Sample statements taken from the interview are shown below.

First, three major benefits of collaborative writing were found in this study: various ideas sharing, teamwork skills encouragement, and writing improvement. Collaboration can extend the ideas among groups and improve their writing accuracy. Moreover, the more they wrote, the less mistake they made. Therefore, it was explicitly found that the final collaborative paragraphs from every group were nearly perfect. Examples of students' statements are shown below.

> Student 1, Group 1, "…In my opinion, I prefer collaborative writing because we can see a variety of perspectives from others…" (Various ideas sharing)
> Student 3, Group 4, "…I think collaborative writing can encourage our teamwork. We had a chance to exchange our different ideas which are interesting…" (Teamwork skills encouragement)
> Student 3, Group 6, "…Working in a team enables us to reflect more mistakes than individual work. For example, if we worked alone, we see only one aspect. But if we worked in a team, we see diverse aspects and you may get unexpected answers from your friends which are good …" (Writing improvement)

Secondly, there are three main problems found in collaborative writing including vocabulary and sentence structure usage, inaccurate translation software, and lack of writing experience as follows.

The main problem is the use of vocabulary and sentence structure. Due to a lack of writing experience, students faced difficulties in selecting vocabulary to write. Therefore, using translation software is the main alternative to help them to write and to make grammatical sentences aside from asking the teacher. Examples of students' statements are as follows.

> Student 1, Group 1, "…Well, in the drafting step, our concern was vocabulary because we sometimes looked up some words that we don't know on the internet. But we figured it out by using Google translate…"
> Student 2, Group 3, "…Overall, everything was okay. Only we couldn't think of the ideas. We also had difficulties in using grammar and punctuation marks like a comma. I was occasionally confused about where to put it in sentences …"

Another problem is inaccurate translation software. The translation was employed throughout the writing process, and students knew the accuracy was not always completely reliable. The following example statements are shown below.

>Student 1, Group 3, "… We used Google translate sometimes, we found out that the sentences looked weird that's why we were not sure about grammar …"
>Student 2, Group 4, "… Everything went well, we knew the translation software called "Grammarly, and it helped us a lot, but I didn't 100% trust that software …"

The last problem is students' lack writing experience. Students somehow had difficulty with different ideas coming from each teammate. However, most of them had the same perspectives on the topics, they helped one another complete the paragraph. Examples of students' statements are as follows.

>Student 1, Group 5, "…At first, I thought it was hard to write, because I've never tried this kind of writing before, but when I practiced more, I got used to it little by little…"
>Student 2, Group 6, "…One of the problems was we couldn't think of ideas, so we looked at other groups' ideas as a guideline…"

Students would have more satisfaction with writing in a group of three if they could choose the topic by themselves based on their interests. However, online learning was likely to hinder students' interactive learning and learning motivation. Examples of students' statements are shown below.

>Student 1, Group 4, "… I suggest letting students choose a topic by themselves, it   would be nice if they could write about their favorite topic …"
>Student 2, Group 5, "…The more you know the vocabulary or grammatical   sentences, the better you write…"

From the results, it can be concluded that collaborative writing benefits the students in terms of teamwork skills and writing improvement in content and accuracy. Students' writing inexperience contributed to the failure in using appropriate vocabulary which translation software somehow could not completely correct mistakes. However, the teacher's feedback can significantly trigger students' ideas and raise grammar and vocabulary using awareness for students which can improve students' writing skills.

Discussion and Conclusion

This section discusses the results of the study in relation to previous studies into two main aspects: (1) the effects of the collaborative process writing approach on Thai EFL secondary school students' writing skills and (2) Thai EFL secondary school students' attitudes towards the use of the collaborative process writing approach in developing their writing skills. The

section concludes by presenting the study's limitations and suggestions for further studies

The Effects of the Collaborative Process Writing Approach on Thai EFL Secondary School Students' Writing Skills

The results showed that the post- test score of the experimental group was higher than the pre-test score. This can be concluded that collaborative writing improved students' writing skills because they got more chances to share opinions among friends that leads to pools of ideas which enables compositions to become more accurate. This supports the previous studies (e.g., Such, 2021; Sundgren & Jaldemark, 2020) that collaborative writing requires EFL students to mediate their language use and collaborate with one another in solving their language-related doubts. In terms of grammar and vocabulary, students could find out solutions by looking up vocabulary or using translation software without asking a teacher. This relates to a study by Pham et al. (2020) which indicated that collaborative writing could benefit teachers in the sense that collaboration can result in more accurate texts as students receive feedback from one another not just from their teacher. Similarly, to collaborate in a group, students can accomplish group pride and can be enjoyable and practical. This is in line with several previous studies (e.g., Such, 2021; Yim & Warschauer, 2017; Zhang, 2018; Zhang et al., 2021; Zhang & Plonsky, 2020). Furthermore, students also collaboratively wrote through the process of writing as they were pooling ideas by stating, exchanging, adapting, and adopting others' ideas to improve the writing tasks in terms of content and language use. It was found that students preferred brainstorming in groups rather than individually as they helped one another to organize ideas, edit the grammatical mistakes marked by a teacher, and also proofread the writing tasks. The previous study by Dokchandra (2018) affirmed that the process of writing can improve students' thinking process as well as text analysis which contributes to the awareness of planning and organizing the written texts throughout the steps of writing. Moreover, students also stated that they felt more comfortable working with their teams as they can independently exchange one another's points of view and support their own idea. The other result showed that most students tracked the teacher's reflection in terms of organizing texts, punctuation, and sentence structures as well as somehow adding or self-editing to improve their written texts. This is in line with the previous study by Hyland and Hyland (2019) which indicated that the teacher's guidelines can help students to write step by step in the writing process which can promote students' writing skills.

Thai EFL Secondary School Students' Attitudes towards the Use of the Collaborative Process Writing Approach in Developing their Writing Skills

According to the results, since they got a chance to share various ideas, it enabled their writing to look more interesting and enabled students to save time brainstorming ideas through group collaboration. These results were consistent with some previous studies (e.g., Puji, 2013; Yim & Warschauer, 2017) which showed positive results of collaborative writing unlike individual writing when generating ideas because students can pool ideas together and receive feedback from their peers within groups. Moreover, the results also indicated that collaborative writing could strengthen the working system as they allocated their writing task with their team, gave a suggestion, and motivated one another to write. These support the previous studies (e.g., Such, 2021; Sundgren & Jaldemark, 2020; Zhang et al., 2021) that collaborative writing can help students engage in a community of equals who respond to each other's work and together create an authentic social context for interaction and learning. The result also showed that the co-constructing team tended to lessen the mistake that occurred in their writing because mix-ability students were grouped together, so they helped one another recheck their writing. This related to the previous studies that when students edit their peers' writing texts, they can foster attention to grammatical constructs and enhance their language learning. Also, they are likely to take the opportunity to shadow writing strategies among various levels of English language abilities (Azodi & Lotfi, 2020; Dobao, 2012). Additionally, results from the interview also showed the students' positive attitudes towards the collaborative writing process helped improve their writing, and fewer grammar errors were found compared to the first draft which was likely to have more grammatical errors and unorganized sentences. Besides that, the teacher's feedback also played a major role in the improvement of their writing. The accuracy and meaning were much more refined as the students followed the teacher's feedback about editing and adding in their next draft. This can support previous studies (e.g., Diliduzgun, 2013; Dokchandra, 2018) that their writing skills were improved since the teacher helped them by teaching step by step.

Regarding the implication, the findings showed that collaborative writing enables students to feel comfortable working with their teammates without social distancing. However, working in a group of three is not always applicable to all cases. Some may think that the more people in groups, the more diverse ideas will be. It could be time consuming when considering differing points of view. Additionally, collaborative writing can be difficult for introverted students who scarcely get involved in group activities. This

study could provide the guideline for further research in terms of how to deal with those students.

In addition, individual group also had the difficulty of vocabulary and grammar structure use especially in low-proficient students. They frequently looked up some vocabulary and used translation tools to generate sentences. Also, they somehow lost their attention because of online learning and a challenge of the writing activities. For high-proficient students, some students used varied vocabulary and occasionally rechecked the accuracy with the teacher. However, the overall atmosphere between control and experimental groups is different in a significant way as experimental group working atmosphere was more fun and discussive than the other students in the control group. Therefore, it can be considered more on encouraging students who participate in individual written texts on further studies.

In conclusion, the collaborative process can develop students' writing skills as their improvement can be seen from the development of three writing topics, students gained fewer mistakes every time they wrote. Moreover, students learned a variety of vocabulary from their teammates and other online sources. Students became more confident in writing a paragraph which can be seen from the time usage and word use that were far different from the first draft they wrote. However, it will be more useful for students if they are implemented enough practice hours and consistently motivated for collaborative writing as all members are aware of helping one another in groups.

In this current study, there were some limitations. Due to the COVID-19 pandemic situation, students had to study online. Therefore, the researcher solved this problem by using the Zoom application and having meetings and discussion groups online. For further research, if collaborative writing activities could be employed in normal face-to-face classrooms, the researcher would be able to handle classes more easily and observe each group more closely in order to gain more explicit and complete data. In addition, as this study focused on argumentative paragraph writing, further research should be conducted with other types of writing such as comparison, narration, description, or cause and effect. Finally, the duration of this study did not cover the whole semester, so the students might not be engaged long enough in collaborative writing. Therefore, further research should increase the duration so that students could have more opportunities to write collaboratively for producing more significant findings.

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