Abstract
In the era of developing technology, especially the Fourth Industrial Revolution, the field of education is witnessing heavy implementation of emerging technologies for teaching and learning, including applications, software, and online courses. However, any piece of technology would bring both advantages and drawbacks. Therefore, blended learning has caught the attention and consideration of all the people involved. This study investigated the impacts of blended learning on writing skills for university students, aiming to figure out the effectiveness and students’ attitude towards this study mode. Fifty-six pre-intermediate students with little or no formal instructions on how to utilize technology in learning essay writing were selected. A combination of experimental design and questionnaires was used, giving the treatment participants alternative learning experiences through a variety of technology applications beside the traditional method. Data from pre-tests and post-tests taken from the eight-week period revealed that students in the experimental groups outperformed those in the control group on the aspects of topic development, essay organization, and lexical usage. Results of the questionnaires delivered at the end of the course showed very positive feedback towards this blended mode in terms of effectiveness, involvement and collaboration. Yet, some drawbacks reported by the participants were worth our mindfulness and consideration when applying this model in a larger scale.

Keywords: blended learning, mixed method, technological applications, teaching techniques, teaching writing

Introduction
The integration of technologies into the course of teaching and learning, or blended learning, has found its way to be a popular theme in many educational forums and programs these days. The concept of blended learning has been so well-known, particularly in developed countries, that it has been referred to as “the new normal and emerging technologies” (Dziuban et al., 2018, p.3) or the “new traditional model” (Bonk & Graham, 2012, p.167). It is acknowledged that in this era of emerging technologies, the young generations even leave teachers and educators behind in aspects of practicing and utilizing new forms of technology. Prensky (2001) claimed that there existed a widening gap between teachers and learners as the former
felt uncomfortable adapting their teaching styles to well fit the diverse and trendy demands of the latter.

Although blended learning has been a norm in many countries, it still remains a notion hard to gain acceptance from most older parents. They persist with a mindset towards the traditional approach due to its long-term proven effectiveness. Scientifically, only a few studies examining the perception towards and the application of blended learning model in Vietnam have been reported (Tran, 2016; Thi, 2019), let alone the aspect of teaching writing skills at university level. According to Nguyen (2010) and Le and Nguyen (2017), the low level of information and communications technology among many Vietnamese language teachers is the main barrier to applying technology in classes.

Rationale and Significance of the study
This small-scale study was conducted at International University – VNU HCM, which is the university home for the majority of students from wealthy families. A quick survey on the most popular activities using technological devices revealed that students spent a great amount of time on entertainment-related activities, not on academic work as preparation for future life. At the same time, a range of traditional classroom activities were seen as boring, demotivating, or routine, and several requests urging for more flexibility in teaching writing skills from a few students were posted on a Facebook group entitled ‘Confessions’. It is obvious that turning the classroom into a welcoming, relaxing, interesting and positive place plays an important role in the process of language acquisition (Oxford & Shearin, 1994; Dörnyei & Csizér, 1998). Integrating technologies into traditional classroom practices was seen as a worthwhile alternative to be developed. In addition, an important aspect to be considered was that using repeatedly just one single activity or application could be considered ‘a routine’ and could hardly boost the exciting atmosphere or facilitate effective learning experience. This shed light on a decision regarding the design of the mixed learning mode at International University that a combination of a variety of traditional classroom activities and different online applications would possibly produce positive outcomes. This situation was the impetus to conduct this study.

International University is currently the only public university in Vietnam that uses English as the medium for teaching, learning and researching. Hopefully, the framework applied in this study could help improve the quality of teaching and learning and serve as an effective preparation for students to study the courses in their major.

Literature Review
In this literature review section, the notion of blended learning is defined. Then, the elements and benefits of blended learning are presented. Finally, related studies on the use of various technological devices are brought into discussion.

Definitions of blended learning
A variety of dimensions to describe the term blended learning have been examined. As the most logical and natural form of learning, blended learning is considered the integration of “innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning” (Thorne, 2003, p.16). Bersin (2004) referred to blended learning as “the combination of different training media (technologies, activities, and types of events) to create an optimum training program for a specific audience” (p.56). According to Stein and Graham (2014, p.12), blended learning is defined as “a
combination of onsite (i.e. face-to-face) with online experiences to produce effective, efficient, and flexible learning”. It is obviously seen that this form of learning appears to open up a new horizon of knowledge and opportunities for all the teachers and learners involved. In the scope of this study, blended learning is based on the concept of the integration of technological tools and applications into traditional learning activities to give students effective learning experiences through a variety of activities, more students’ talking time, collaborative work and a sense of self-awareness.

**Elements of Blended learning**
There is obviously not a single best model of blended learning for all teaching purposes. Depending of the distinctive features (for instance, requirements of courses, characteristics of teachers and learners, availability of facility, tuition fee), the design and implementation of blended learning model may vary. According to Stein and Graham (2014, p.28), two variables should be seriously considered as a foundation to design blended learning courses.

The first variable is related to technology-enhanced teaching and should be analyzed right at the beginning of the design. The questions for this variable include:

a. How much learning time can be onsite versus online?
b. What learning theories or teaching philosophy does the teacher subscribe to?
c. How literate are teacher and students in these specific technologies?

The second variable should be repeatedly considered throughout the course design process. The questions for this variable include:

a. Which mode—onsite or online—best fits the specific learning outcome(s)?
b. Is limited onsite time being used to maximum benefit?
c. What available technologies support learning without distracting?

These questions laid firm foundations during the process of considering and selecting the appropriate components for this research study.

**The benefits of blended learning**
After years of practice, blended learning has led to learners’ improvement in a variety of aspects of language learning. Hew and Cheung (2014) reviewed related research studies on the effectiveness of blended learning and placed the benefits of this learning mode in four categories as follows:

a. Blended learning satisfies the educational needs of students, particularly adult learners.

Many adult learners need to work part-time or even full time to make ends meet, to provide support for families or simply, to cover the tuition fee. Therefore, adopting full-time training on the traditional approach appears to be impossible. Also, a totally online course will deprive learners the chance of face-to-face interaction. A mixed learning model allows the learners to explore and acquire new information in the most appropriate ways (McCray, 2000).

b. Blended learning helps raise interaction with learners in terms of asynchronous and synchronous learning via technological tools. Research shows that learner interaction is an important factor that causes failure and eventual drop-out in online courses. (Willging & Johnson, 2009; Kintu & Kagambe, 2017)

c. Blended learning helps lower the tuition fee, which relieves the stress of budget constraint faced by many students, especially in higher education.

d. Blended learning increases learners’ learning outcomes.
From the advantages brought about by blended learning mode, it is of high possibility that if designed and managed in a proper way, blended learning can be a wonderful alternative in the field of language teaching and learning.

**Previous research studies**

With a hope to verify the effectiveness of and attitudes towards this learning mode, a number of research studies were reviewed. Kazmer (2000, p.15) conducted four interviews with students within a school year in the distance education program at the University of Illinois and found that the involvement that “the more energy a student is able to devote to contributing their time and thoughts to each class, the more learning and satisfaction they will gain”. Pop and Sley (2012) aimed to maximize effects of EFL learning in a class-size project. They combined the asynchronous elements including self-paced asynchronous writing and speaking tasks and collaboration via writing blogs. The outcomes revealed that the opportunities to collaborate and work outside classroom boundaries helped students perform better in communication in the target language. A large scaled survey conducted by Korkmaz (2012) with more than 800 students reported that online communicative learning helped equip learners with academic success, soft skills and more importantly, resulted in positive attitudes towards learning. Adas and Bakir (2013) explored how blended learning work for their university writing class. The experimental study involved sixty Palestinian students during a semester study using the online course tool Moodle. A few tasks required by students include posting their feedback to a given paragraph by the teacher, such as as error recognition; submitting a paragraph written by themselves on a given topic; and giving opinions to a piece of postings. The t-test results showed that the experimental members enjoyed the online working experience, improved significantly their writings using topic sentences, spelling and grammar, punctuation, and produced better coherent works. Recently, Castro (2019) reviewed forty-five peer-reviewed journal articles with the hope to find out “the most promising trends in blended learning implementations in higher education, the identification of some capabilities provided by the technology (e.g., datafication), and the contexts of use of these capabilities” (p.2540). Analysis of the collection placed the common trends in a few categories including (a) the impact of in-class learning activities on promoting interaction and collaborative environments, (b) the influence of technologies on students’ learning behavior, etc. The study found that the acceptance of learners on blended learning was high, closely correlated with the quality of technology integration.

As blended learning involves the use of technologies in various forms, researchers have been trying to explore different possibilities of technological innovations, software, and applications. Keles (2012) gave 24 elementary teachers instructions on mind mapping techniques, then interviewed them on six open-ended questions for their viewpoints. Results indicated that mind mapping helped teachers perform better in planning and evaluating lessons, giving instructions, and making the lessons interesting. For students, the usefulness of mind maps involved solving problems, generating ideas, enriching vocabulary, sharpening reading skills and preparing for presentations (Buran & Filyukov, 2015). Ashraf et al. (2014) explored the effectiveness of online games in learning vocabulary. The study with 24 low-intermediate Iranian EFL students in 15 weeks using pre-test and post-test showed that online games facilitated vocabulary acquisition by creating interactive, motivating contexts where students could compete, cooperate, play, share, and learn. To investigate the effectiveness of using Facebook as a component of blended learning, Tananuraksakul (2014) conducted a qualitative research study with 53 students in a university writing class in Thailand and found that Facebook could be used as a blended learning tool and platform to learn with, not to learn
from. According to Majid et al. (2015), when used as a tool for blended scaffolding strategies and a platform for technology aid, Facebook was found to help students improve the writing process and writing performance. Zhang and Zhu (2020) conducted a massive survey study on the perceptions of blended learning to online and traditional learning with 653 students at different universities. The finding reported a higher level of effectiveness of blended learning in aspects of activity, expectation, cooperation, interaction, and feedback. In another aspect, Rasheed et al. (2020) carried out a review study to find out the challenges learners had to face when employing a blended learning model. They reviewed up to 594 articles from the Web of Science electronic database published in 2018 and found that students suffered from self-regulation challenges and inability to effectively use technology for studying.

These scientific works act as firm grounds for the view that blended learning is an indispensable component to language learning in the time of technology revolution. However, what to blend and how to blend to fit the purpose of teaching and learning still remain questions for educators to answer.

**Hypotheses of the study**
There are two hypotheses of the current study.
H1. The experimental group (with the use of blended learning framework) would achieve better scores in the post-test compared to the control group.
H2. Students in the experimental group would perceive the applied blended learning framework as effective.

**Research questions**
The objective of this research study is to investigate the effectiveness of blended learning on students’ writing ability. There are two research questions as follows:
(i.) To what extent can the blended learning improve the students’ writing ability?
(ii.) What are the students’ perceptions towards blended learning used in teaching writing?

**Methodology**
**The sampling**
With the permission and support from the chair of the English Department, two *Intensive English* 2 classes, each with 35 students, were selected. A fixed policy at International University, where English is used as the main means of communication in teaching, learning and researching, is that all the students must achieve a level of English competence (equivalent to IELTS 6.0 or TOEFL iBT 60) to be eligible to start learning major courses. Failure to have sufficient English proficiency results in training at the Intensive English levels. The target population of the research was taken from *Intensive English* 2 classes with the English proficiency at pre-intermediate level. Upon completing *Intensive English* 1, students acquired basic grammar and structures and were able to write full paragraphs or short essays ranging from 150 to 200 words in various genres including narration, description and opinion.

The first class meeting was reserved for informing students of the two writing classes of the research study and for getting their approval to join the study. Their information and scores were promised to be used just for scientific purposes and for the improvement of future classes. All the students were then asked to do a 30-minute pre-test with one writing task 2 question of the TOEFL iBT exam. The question was taken from *Longman Preparation Course for the TOEFL Test*, Pearson Longman to assure the standard of the question. The papers were
graded by two examiners based on the grading rubrics issued by the Educational Testing Service (ETS) to ensure objective and standard scoring. In addition, the students were required to complete a survey about their previous experience on blended learning. (see Appendix 1 for The Survey).

Table 1
Descriptive statistics on the pre-tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Count</th>
<th>Mean</th>
<th>StDev</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-C</td>
<td>28</td>
<td>50.96</td>
<td>11.21</td>
<td>30.00</td>
<td>75.00</td>
<td>45.00</td>
</tr>
<tr>
<td>PRE-E</td>
<td>28</td>
<td>50.50</td>
<td>11.08</td>
<td>30.00</td>
<td>70.00</td>
<td>40.00</td>
</tr>
</tbody>
</table>

*PRE-C: Pre-test of the control group
*PRE-E: Pre-test of the experimental group

Table 2
Estimation for Paired Difference

<table>
<thead>
<tr>
<th>Mean</th>
<th>StDev</th>
<th>SE Mean</th>
<th>95% CI for μ_difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.46</td>
<td>15.16</td>
<td>2.86</td>
<td>(-5.41, 6.34)</td>
</tr>
</tbody>
</table>

Based on the results of the pre-test and the responses from the survey, 28 students of each class were selected and named as the control group and experimental group respectively with the following:

- Score range: 30-75 (students with scores lower than 30 may struggle during the course and those higher than 75 may not improve much after the course)
- Mean score of the two groups should be similar. Independent Samples t-test shows M=0.46, p > 0.05 so the mean of the two groups is not significantly different.
- The group with students knowing very little about blended learning was selected as the experimental group. Some may have attempted to get online, search for sample materials, but they had not received prior formal instructions on how to utilize the effects of this learning mode. This was to assure the objectiveness of students’ perceptions towards this blended learning mode at the end of the study.

It was important to note that the twenty-eight selected participants for each class were recorded and observed for the study, but no announcements on the list of selection were made to the two classes since it was believed that failure to be a selected participant could hurt the student psychologically, and this harm might affect the whole process and the effectiveness of the study.

Theoretical framework of blended learning
As blended learning blends the face-to-face teacher-led training with the electronic training format, teachers, depending on various characteristics of the course, can develop the blending mode in different ways. However, according to Bersin (2004), blended learning is generally divided into two main approaches. The first approach is called program flow model (p.56). The online and offline components are selected based on the lesson objectives so as to best benefit the learners. In other words, this model “creates a step-by-step curriculum that integrates several media into a chronological program or syllabus” (p.56). The second approach is named as the core-and-spoke model. Core refers to the essence of the course, which can be the basic face-to-face approach (offline mode) or a web-based software or platform (online mode). Then, other resources or supplementary materials (e.g. handouts,
activity worksheets, assessment, exercises, online quizzes, software) are provided to complement the primary approach.

In this study, a combination of the two approaches described by Bersin (2004) was employed. With the long-lasting positive mindset towards the traditional approach in Vietnam and also, due to the present context of face-to-face learning at universities, the primary approach was the face-to-face class meetings, aided by a variety of teaching and learning activities in both online and offline mode to make the blended learning an interesting and effective experience.

**Research instruments**

**The Survey (See Appendix 1)**

The survey included two questions, aiming to gather information about students’ previous experience of blended learning. The information also helped sorting participants for the research.

**The Pre-test and Post-test**

The pre-test and post-test were designed in the same format, which was a 30-minute-essay writing task of the TOEFL iBT exam, taken from *Longman Preparation Course for the TOEFL Test*, Pearson Longman. The purpose of the two tests allowed quantitative comparisons to answer the first research question.

**The Questionnaire (See Appendix 2)**

The questionnaire was composed of two parts seeking students’ ratings and comments on blended learning in general and various course components in detail. The first part focused on various course components in detail, with eight multiple choice questions on a five-point Likert scale, named as very useless to very useful, and 17 checkbox questions, each with an additional option, Others, for students to add their own answers. The second part aimed at blended learning in general, consisting of six open-ended questions and one multiple choice question. A Google form design was applied for the convenience of conducting and collecting results. Data collected from the questionnaire was used to answer the second research question.

**Sample class procedure**

The students in both groups were exposed to and took part in a variety of traditional classroom practices (e.g. brainstorming, discussion ...) and those in the experimental group did collaborative blended learning activities (e.g. mind map presentation, online readings, Facebook group postings ...) so as to improve their English essay writing competence. (Challob et al., 2016). A single learning mode would limit the reach of learning and the transfer of knowledge (Gecer, 2013). These students were then divided into seven groups of study. A Facebook group set in secret mode was created, and students were added to the group to get ready for the intensive sessions of the course.

To maintain the basic requirements of the course, participants in both experimental and control groups shared a range of features including:

- textbooks (TOEFL iBT Activator, Intermediate and Advanced series)
- sample essays
- essay topics for the writing practice
- and classroom activity content
For the control group, activities were held in traditional ways, mostly with pen and paper whereas for the experimental group, in order to maintain flexibility and variety of each class meet, and to get students more involved in class activities to foster the quality of teaching, different components were mixed and integrated to fit the objectives of the lesson (Bueno-Alastuey & López Pérez, 2014). Due to the long-lasting tradition of teaching and learning in tertiary levels in Vietnam, the text-based approach was employed, hoping to achieve the most effectiveness. A text is seen as a stimulus for production or a springboard for another task, especially writing task (John & Davies, 1983). A sample procedure for a lesson following the Presentation – Practice – Production format (Richards & Rodgers, 2014) is illustrated in Table 3 below. Detailed descriptions on the course components of the experimental group are presented in Appendix 3.

Table 3
Sample procedures

<table>
<thead>
<tr>
<th>T: Teacher</th>
<th>SS: students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONTROL GROUP</strong></td>
<td></td>
</tr>
<tr>
<td>− T leads in the topic of the essay by showing a picture/ short video clip on the slide and ask some brainstorming questions. Ss are assigned in groups and discuss the questions then give opinion in front of the class.</td>
<td>− T leads in the topic of the essay by showing a picture/ short video clip on the slide and ask some brainstorming questions. Ss are assigned in groups and discuss the questions then give opinion in front of the class.</td>
</tr>
<tr>
<td>− T introduces the topic of the lesson.</td>
<td>− T introduces the type of essay and gives some sample questions.</td>
</tr>
<tr>
<td>− T introduces the type of essay and gives some sample questions.</td>
<td>− T introduces some target vocabulary, designs interactive activities online (kahoot/ quizlet live/ wordwall) or other traditional vocabulary games (hangman/ hotseat/ running dictation/ tattoo, etc.) to help Ss remember the target vocabulary in a competitive environment and then asks students to write sentences using the word learnt in pairs/ groups using google sheet or A3 paper correspondingly.</td>
</tr>
<tr>
<td>− T introduces some target vocabulary, gives some control practice and asks students to write sentences using the word learnt in pairs/ groups on paper.</td>
<td>− T collects the paper and gives feedback.</td>
</tr>
<tr>
<td>− T collects the paper and gives feedback.</td>
<td>− T uses the link to show some group’s google sheet on the slide or sticks the A3 paper on the wall and gives some feedback.</td>
</tr>
</tbody>
</table>

<p>| <strong>EXPERIMENTAL GROUP</strong> | |
| − T introduces the topic of the lesson. | − T introduces the type of essay and gives some sample questions. |
| − T introduces the topic of the lesson. | − T introduces the type of essay and gives some sample questions. |
| − T introduces some target vocabulary, gives some control practice and asks students to write sentences using the word learnt in pairs/ groups on paper. | − T introduces some target vocabulary, designs interactive activities online (kahoot/ quizlet live/ wordwall) or other traditional vocabulary games (hangman/ hotseat/ running dictation/ tattoo, etc.) to help Ss remember the target vocabulary in a competitive environment and then asks students to write sentences using the word learnt in pairs/ groups using google sheet or A3 paper correspondingly. |
| − T collects the paper and gives feedback. | − T uses the link to show some group’s google sheet on the slide or sticks the A3 paper on the wall and gives some feedback. |</p>
<table>
<thead>
<tr>
<th>Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>T divides class into groups of four students by counting 1,2,3,4, then delivers each group one sample essay. Ss discuss in groups and explore the sample text to find out the organization of the essay.</td>
<td>T divides class into groups of four students by counting 1,2,3,4 or using team generator online and sends each group the link of the sample essay or a sheet of a sample essay. If Ss are provided with a sheet of sample essay, they use pens and highlighters to analyze the essay. If Ss are given the link of a sample essay, Ss are asked to change color of the statement and name the function of the statement by adding textbox or comment. Upon finishing, Ss present their findings.</td>
</tr>
<tr>
<td>T confirms the correct organization of a good essay. Ss can take notes in their notebooks.</td>
<td>T confirms the correct organization of a good essay. Ss can take notes in their notebooks or on their smartphones or ipads.</td>
</tr>
<tr>
<td>T gives Ss the question of the essay and asks Ss to write the outline of the essay individually on paper.</td>
<td>T gives Ss the question of the essay (related to the theme that Ss were asked to read online in the mind map presentation part) and asks Ss to form groups then discuss to find out the main ideas of the essay and use the mind map app (simple mind/ mind map and note-taking tools, etc.) to note these main ideas.</td>
</tr>
<tr>
<td>T goes around the class to provide scaffolding and support.</td>
<td>T goes around the class to monitor, facilitate, and provide scaffolding to groups of Ss.</td>
</tr>
<tr>
<td>T reminds Ss of some key issues they should consider when brainstorming ideas for the essay.</td>
<td>Upon finishing, Ss are asked to upload the mind map onto the Facebook group and T assigns another group to give comments on the main ideas of their mind map.</td>
</tr>
<tr>
<td>T asks Ss individually or in groups to practice writing 1 paragraph (introduction or 1 body paragraph or conclusion) on their notebook/paper.</td>
<td>T chooses a mind map to show to the class and reminds Ss of some key issues they should consider when brainstorming ideas for the essay.</td>
</tr>
<tr>
<td>T goes around the class to provide scaffolding and support.</td>
<td>T asks Ss to practice writing 1 paragraph (introduction or 1 body paragraph or conclusion) in groups.</td>
</tr>
<tr>
<td>T takes notes on some common mistakes and shows on the slides to students.</td>
<td>T can increase variety by asking Ss to post their assigned writing paragraph onto the Facebook group to receive comments from other groups or write the writing text on an A3 sheet then stick on the wall for the other groups to give correction.</td>
</tr>
<tr>
<td>Due to the time limit of each class, T goes around, and gives comments on a few groups at random.</td>
<td>T goes around the class to provide scaffolding and support.</td>
</tr>
</tbody>
</table>
Data collection procedure
On the first-class meeting, all the students of the two groups were asked to complete the pre-test and those in the experimental group to take the survey. Results of the pre-test had helped to select 28 out of 35 students for the control group. Together with the findings from the survey, 28 students were selected for the experimental group.

After the eight-week treatment with a wide range of activities, the post-test in the same format as the pre-test was delivered to students of both groups in class. Participants in the experimental group were also requested to give their feedback on the blended learning mode by completing the questionnaire. A shortened link of the questionnaire was created to give students easy and quick access to the questions. Test scores and questionnaire responses were then collected for comparison and analysis.

Data analysis
To examine the scores of the pre-test and the post-test, the statistical tool Minitab19 was used to provide descriptive statistics for analysis. The adoption of Minitab19 was on the grounds that its installation occupies a small capacity, therefore, starts off faster and processes data more quickly than the more popular (SPSS) in the field of statistics. Descriptive statistics of the pre-test were used to select participants whereas those of the post-test were used to make comparisons, based on which a conclusion on the improvement of learners or the effectiveness of the treatment could be drawn.

To process data taken from the survey and questionnaire, the spreadsheet (Excel) was utilized due to its many useful functions. First, responses from the survey were recorded in an Excel file entitled survey. The Sort & Filter function made it easy to observe the data and decided how many students had never experienced any blended learning course before and so on. Similarly, when all the experimental participants finished the questionnaire, the responses were recorded in a Google sheet, which then was saved as a spreadsheet file. Automatically, names of the respondents were presented in rows, and their responses to each question were placed in corresponding columns/cells. This allowed the production of graphs or calculation on percentages quickly and easily.
Findings
Score comparison and analysis

Table 4
Descriptive statistics on the post-tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Count</th>
<th>Mean</th>
<th>StDev</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>POST-C</td>
<td>28</td>
<td>59.86</td>
<td>10.78</td>
<td>35.00</td>
<td>75.00</td>
<td>40.00</td>
</tr>
<tr>
<td>POST-E</td>
<td>28</td>
<td>67.32</td>
<td>8.62</td>
<td>50.00</td>
<td>85.00</td>
<td>35.00</td>
</tr>
</tbody>
</table>

*POST-C: Post-test of the control group
*POST-E: Post-test of the experimental group

Table 5
Estimation for Paired Difference (Post-C Post-E)

<table>
<thead>
<tr>
<th>Difference</th>
<th>95% CI for Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>-7.46</td>
<td>(-12.31, -2.61)</td>
</tr>
</tbody>
</table>

Descriptive data of the post-tests show that students in the experimental group achieve a mean score of 67.32 compared to 59.86 in the control group. Independent Samples t-test reveals a mean difference of 7.46 with p-value < 0.05.

Table 6
Estimation for Difference (control group)

<table>
<thead>
<tr>
<th>Difference</th>
<th>95% CI for Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>-8.89</td>
<td>(-14.79, -3.00)</td>
</tr>
</tbody>
</table>

Comparison of pre-test post-test scores of the control group (dependent t-test) shows a difference in the mean score of 8.89 with p-value < 0.05.

Table 7
Estimation for Difference (experimental group)

<table>
<thead>
<tr>
<th>Difference</th>
<th>95% CI for Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>-16.82</td>
<td>(-22.15, -11.49)</td>
</tr>
</tbody>
</table>

Comparison of pre-test post-test scores of the experimental group (dependent t-test) shows a difference in the mean score of 16.82 with p-value roughly < 0.05.

Figure 1: Control group Pre-test Post-test Comparison
The line graphs (in Figures 1 and 2) illustrating the performance of individuals of the two groups report the pre-test scores (lower line) under the post-test scores (upper line). In general, the gap between the pre-test and post-test scores of the control group is narrower than that of the experimental group.

**Questionnaire responses and analysis**

**Table 8**

The ratings of usefulness of each component

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Very useless</th>
<th>Useless</th>
<th>Not sure</th>
<th>Useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive online readings</td>
<td>0.0%</td>
<td>0.0%</td>
<td>21.4%</td>
<td>42.9%</td>
<td>35.7%</td>
</tr>
<tr>
<td>Mind map presentations</td>
<td>0.0%</td>
<td>3.6%</td>
<td>25.0%</td>
<td>50.0%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Discussion sessions</td>
<td>0.0%</td>
<td>3.6%</td>
<td>10.7%</td>
<td>50.0%</td>
<td>35.7%</td>
</tr>
<tr>
<td>Brainstorming sessions</td>
<td>0.0%</td>
<td>3.6%</td>
<td>14.3%</td>
<td>64.3%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Essay analysis</td>
<td>0.0%</td>
<td>0.0%</td>
<td>10.7%</td>
<td>50.0%</td>
<td>39.3%</td>
</tr>
<tr>
<td>Facebook group</td>
<td>0.0%</td>
<td>0.0%</td>
<td>25.0%</td>
<td>50.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Vocabulary games</td>
<td>3.6%</td>
<td>0.0%</td>
<td>21.4%</td>
<td>42.9%</td>
<td>32.1%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>0.0%</td>
<td>3.6%</td>
<td>14.3%</td>
<td>50.0%</td>
<td>32.1%</td>
</tr>
</tbody>
</table>

Each course component (Table 8) receives the rating mostly of ‘useful’ and ‘very useful’ with figures for these two categories at more than 70%. In particular, essay analysis possessed the highest rating, topping at nearly 90%, followed by the discussion sessions (85.7%). Still, 3.6% was rated as ‘very useless’ for the Vocabulary games.
According to Figure 3 regarding the benefits of extensive readings outside class time, the highest ratings were devoted to learning ideas and expressions, and enlarging the range of vocabulary (64.3%), followed by enriching ideas for specific topics with 50%.

Feedback on the benefits of the discussion sessions (Figure 4) reported more than 67% of the participants favored the activity as it helped promote critical thinking and finishing the task faster, and even more than four fifths regarded this as a method to generate better ideas. Another component that received encouraging feedback is Facebook group activity (Figure 5), which resulted in 60.7% of the students reporting that it gave them a sense of responsibility for their learning.

Regarding the activity of essay analysis (Figure 6), high ratings were given owing to its benefits in areas of techniques and logic in organizing ideas in an essay with 64.3% and 71.4% respectively. Only 3.6% answered that this activity helped write essays better. In general, more than 90% (Figure 7) of the students in the experimental group rated the blended learning mode as effective and very effective.
**FACEBOOK GROUP POSTINGS**

- Convenient: 21.4%
- Foster active learning: 46.4%
- Enhance responsibility: 25.0%
- Promote participation and feedback: 60.7%
- Self-adjust: 53.6%
- Keep informed: 53.6%
- Improve technical skills: 3.6%
- Enhance negotiation skills: 10.7%
- Enhance communicative skills: 7.1%
- Enhance collaboration: 14.3%
- Build up confidence: 57.1%
- Make better word choice: 46.4%
- Practise using grammar and structures: 39.3%
- Learn techniques in arranging ideas: 32.1%
- Recognize the logic in organizing ideas: 35.7%
- Enrich ideas for specific topics: 25.0%
- Relaxing: 28.6%

**Figure 5: Benefits of the Facebook Group Postings**

**ESSAY ANALYSIS**

- Have an overview and write essays better: 3.6%
- Enhance negotiation skills: 17.9%
- Enhance communicative skills: 17.9%
- Enhance collaboration among friends: 14.3%
- Build up confidence: 28.6%
- Learn the techniques in arranging ideas: 64.3%
- Recognize the logic in organizing ideas: 71.4%
- Enrich ideas for specific topics: 46.4%

**Figure 6: Benefits of the Essay Analysis**
Discussion

To answer research question (i) *to what extent can the blended learning improve the students’ writing ability?* Results of a few tests were considered, including (a) independent samples t-test of the pre-test scores of both groups, (b) independent samples t-test of the post-test scores of both groups, (c) dependent samples t-test of the pre-test post-test scores of the control group, and (d) dependent samples t-test of the pre-test post-test scores of the experimental group.

The result of test (a) \([M=0.46; p>0.05]\) indicated there was no significant difference in the pre-test of the two groups. In other words, participants had quite similar English competence at the beginning of the study. Test (b) \([M=7.46; p<0.05]\) showed a significant difference in the post-test scores of the two groups. With the finding from test (c) \([M=8.89; p<0.05]\), it is inferred that students of the control group performed better in the post-test, compared to the pre-test. It is logical to see that students were trained with appropriate method and they got improvement. However, it is more relevant to the current research to see greater improvement in the post-test of the students in the experimental group. Test (d) \([M=16.82; p<0.05]\) confirmed that the mean difference of the post-test pre-test of the experimental group was up to 16.82. Therefore, the tests (a)(b)(c)(d) provided evidence that the eight-week treatment with a variety of traditional classroom activities and the integration of different social applications and software had a positive impact on students’ knowledge and skills. Also, Figures 1 and 2, illustrating the performance of individuals of the two groups indicated that most students improved after the course of eight weeks. The wider gap between the lines presented in the experimental groups gives visual evidence that the students with treatment performed better. From the findings of the four tests (a-d), and the descriptive statistics of the pre-test and post-test scores of the experimental group with smaller figures in standard deviation (from 11.08 to 8.62) and range (from 40 to 35), there are grounds to conclude that the blended learning mode helped students get better improvement in writing ability. This result coincides with related studies stating that blended learning was reported to bring a higher effectiveness than traditional learning (Zhang and Zhu, 2020) and that blended learning possessed the potential to boost students’ language learning outcomes. (Xu et al., 2020)

To answer research question (ii) *What are the students’ perceptions towards blended learning used in teaching writing?* Detailed examination into the general ratings and comments has been taken into consideration.

Figure 7: Overall feedback of the Blended Learning
The ratings of all the components including traditional and integrated activities by the majority of participants showed that they shared a positive viewpoint towards this learning mode, with the lowest of 71.4% for *Mind map presentations* and the highest of 89.3% for *Essay analysis*.

Reflecting on the course components in specific, the extensive online reading activity (Figure 3) at the beginning was intended to help students make the best use of time outside class time. Less than half of the participants (42.9%) met the intention of the study. In fact, the major benefits were reported to be enlarging the vocabulary range, getting expressions and ideas (both at 64.3%) and enriching ideas for specific topics (50%). What the students gained most was not similar to the expected; however, this activity still appeared to be a worthwhile activity to help improve English competence (Howarth & Bollen, 2019).

Regarding the discussion sessions (Figure 4), the students learned a great deal from generating better ideas or completing the task faster to essential soft skills such as critical thinking and creative thinking. This typical activity of Communicative Language Teaching proved to be really efficient in helping learners gain the 21st century skills such as critical thinking, creative thinking, fast thinking and logical thinking (Ongardwanich et al., 2015). Throughout the discussions, the students needed to share opinions, raise questions and debate, so theoretically, they should have improved a lot on negotiation or collaboration skills. However, only about two-fifths admitted to benefit in these skills. This may reflect one weakness of this form of cooperative learning found in Ghufron and Ermawati (2018) in that this activity required a high level of participation on the part of learners and a great deal of effort, care, and preparation on the part of teachers.

The Facebook group postings (Figure 5) received the most varied reflections. The course of working cooperatively consisting of discussing, negotiating to an agreement on one united work, dividing tasks among members, keeping constant contact to maintain the work flow, keeping the strict deadlines, and trying their best to give the best postings for the sake of their self-esteem was of great value. This feature of cooperative learning taking place with the integration of technology utilized appropriate e-learning environments for teaching and learning (Moghavvemi et al., 2017), emphasized individual accountability, and fostered learner responsibility and independence (Zhang, 2010). It is also important to note that Facebook is a quite playful environment, which is often associated with entertainment. Maybe, many students just saw Facebook from various aspects or considered it a tool to post the work, not a platform for group work discussion. This partly explained why a small percentage (10% or less) reported on collaboration, communication and negotiation skills.

Regarding the feedback on the essay analysis activity (Figure 6), text-based approach appeared to be the right choice for the long tradition of learning in Vietnam, in which learners lay much dependence on teachers for instructions and sample works. From the models provided by teachers, students learned “through a process of collaboration and guidance until they reached a level where they could function independently without the teacher’s support” (Richards and Rodgers, 2014, p.207). Most students believed that they could improve on the techniques and logic in arranging and organizing ideas. Probably, the sample essays for analysis were so well-structured that students did not need to spend much time discussing. This led to the low percentages in benefits like negotiation skills, communication skills, collaboration, and confidence. In a sense, these benefits were just additional benefits beside the purpose of improvements on the techniques and logic in idea arrangement and organization. Nevertheless, only 3.6% of students answered that this activity helped them write better
essays. More in-depth conversation with the participants should be conducted to seek explanations for this issue.

The feedback on the overall rating of the blended learning mode (Figure 7) serves as a clear confirmation to the second research question that students found this model useful and effective for learning writing. Responses on the checkbox questions were collected and grouped on the basis of the most popular to the least popular. Data analysis revealed the major benefits of the blended learning components are as follows:

- Interesting
- Help remember ideas better
- Make better word choice
- Arouse the sense of responsibility
- Improve communication skills
- Enhance collaboration
- Build up confidence
- Promote critical/ creative thinking

The findings of this study on students’ perception align with the results taken from other works on specific components used in this study, for instance, “digital games helped facilitate vocabulary learning and easier memorization through interaction, motivation and more meaningful learning” (Shahriarpour, 2014, p.1743) or the use of Facebook brought about a high level of self-efficacy and served as a great platform for collaboration (Moorthy et al., 2019).

It is also a necessity to notice that the blended learning model applied in this research study was comprised of a variety of components. Although the application of all the components received positive feedback from the learners, it seems impossible to determine which components made the biggest contributions to the higher improvement in the performance of the experimental participants in the post-test. It could be the case that the combination of all the mentioned components blended and modified each other with an emphasis on group work activities to bring about the outcomes. Applying the course components separately or using different components, not exactly the ones used in this model, could result in different findings, which might be better or worse.

In addition, maintaining students’ interest and motivation in all class activities, especially the Facebook posting, played an important role. It was important to put into consideration the types of error correction or feedback to provide in the comments. In this study, five areas of error correction were considered, including whether to correct, when to correct, what to correct, how to correct, and who to correct (Scrivener, 2005 cited in Stephens & Sanderson, 2019). It was obvious that this activity reached effectiveness only when feedback played “a useful tool to promote acquisition,” and “error correction enables teachers and learners to determine the level of the learner” (Stephens & Sanderson, 2019, p.5).

Limitations
Although the study received positive feedback and results, it was a small-scale study with only 56 students. The finding would reach higher scientific reliability with results taken from a variety of groups of participants. The length of study was another drawback. It is obvious that high frequency of tasks urging students to finish in an eight-week study would create pressure to any learners; therefore, negative feedback on some learning components is unavoidable.
Giving students the opportunity to experience this learning mode for at least a semester might allow them the time to enjoy the benefits of blended learning at ease.

**Conclusion and educational implications**

With the encouraging results found from the pre-test post-test scores and positive feedback from the questionnaire, there are reasons to claim that the selection, arrangement and conduct of the course components originated from firm logic and that the application of blended learning into teaching TOEFL iBT independent essays gained success. Students benefitted from the course in a variety of aspects. In addition to the improvement in writing competence, enhancement in essential soft skills, for instance, collaborative skills, fast thinking, logical thinking, critical thinking, and creative thinking have all been reported. The findings from this study indicate that this blended learning model helps build better individuals academically with a self-directed learning attitude, which is logically the trigger to autonomy and motivation for life-long learning. Nevertheless, mindful consideration should be paid to the psychology of learners and the pressure of learning so as to make this learning mode a fruitful experience to the people involved.

**References**


**Appendix 1**

**The Survey**

1. Have you experienced any blended learning course before?
   - [ ] Yes
   - [ ] No

   If yes,
   - What activities and software/applications did you have?

   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

   How did your teacher integrate those activities/software/applications into the course?

   __________________________________________________________________________
   __________________________________________________________________________

   Do you agree to experience blended learning in this course?
   - [ ] Yes
   - [ ] No

**Appendix 2**

**The Questionnaire**

**PART 1: THE BLENDED LEARNING COMPONENTS IN DETAILS**

1. Which of the followings is/are your problems in writing an essay? You can tick more than one item.
Lack ideas due to lack of general knowledge
Have ideas but lack necessary vocabulary
Not understand the essay structure
Lack critical grammar for essay writing
Unable to differentiate between main ideas and supporting
Unable to arrange ideas in a logical order
Others: ____________________________

2. How do you rate the usefulness of having extensive online readings to writing an essay?
   □ very useless  □ useless  □ Not sure  □ useful  □ very useful

3. What are the benefits of the extensive online reading activity? You can tick more than one item.
   □ Enlarge the range of vocabulary
   □ Learn grammar and expressions
   □ Enrich ideas for specific topics
   □ Recognize the logic in organizing ideas
   □ Make good use of time beside class time
   □ Others: ____________________________

4. What are the drawbacks of the extensive online reading activity? You can tick more than one item.
   □ Confusing sometimes. Don’t know whether the information is reliable.
   □ Time consuming. Need to check vocabulary to understand.
   □ Boring. Reading is a passive activity itself.
   □ Others: ____________________________

5. How do you rate the usefulness of the mind map presentation activity to writing an essay?
   □ very useless  □ useless  □ Not sure  □ useful  □ very useful

6. What are the benefits of the mind map presentation activity? You can tick more than one item.
   □ Enlarge the range of vocabulary
   □ Learn grammar and expressions
   □ Enrich ideas for specific topics
   □ Recognize the logic in organizing ideas
   □ Build up confidence
   □ Enhance collaboration among friends
   □ Enhance communicative skills
   □ Enhance negotiation skills
   □ Help remember ideas better
   □ Others: ____________________________

7. What are the drawbacks of the mind map presentation activity? You can tick more than one item.
   □ Time consuming
   □ Stressful
   □ Irrelevant. This activity is not related to developing skills of writing an essay.
   □ Others: ____________________________

8. How do you rate the usefulness of the in-class discussion sections to writing an essay?
   □ very useless  □ useless  □ Not sure  □ useful  □ very useful

9. What are the benefits of the in-class discussion sections? You can tick more than one item.
   □ Enlarge the range of vocabulary
Learn grammar and expressions
Enrich ideas for specific topics
Recognize the logic in organizing ideas
Build up confidence
Enhance collaboration among friends
Enhance communicative skills
Enhance negotiation skills
Help remember ideas better
Others: ____________________________

10. What are the drawbacks of the in-class discussion sections? You can tick more than one item.
   - Time consuming
   - Stressful
   - Noisy. It gives me a headache.
   - Distracting. Different people have different ideas.
   Others: ____________________________

11. How do you rate the usefulness of the essay analysis activity to writing an essay?
   - very useless
   - useless
   - Not sure
   - useful
   - very useful

12. What are the benefits of the essay analysis activity? You can tick more than one item.
   - Enrich ideas for specific topics
   - Recognize the logic in organizing ideas
   - Learn the techniques in arranging ideas in an essay
   - Build up confidence
   - Enhance collaboration among friends
   - Enhance communicative skills
   - Enhance negotiation skills
   Others: ____________________________

13. What are the drawbacks of essay analysis activity? You can tick more than one item.
   - Time consuming
   - Stressful
   - Noisy. It gives me a headache.
   - Irrelevant. This activity is not related to developing skills of writing an essay.
   Others: ____________________________

14. How do you rate the usefulness of the brainstorming stage in groups (discuss the main ideas, supporting details and draw a mind map)?
   - very useless
   - useless
   - Not sure
   - useful
   - very useful

15. What are the benefits of the brainstorming stage in groups? You can tick more than one item.
   - Generate better ideas
   - Provide diversity of ideas
   - Create more logical idea development
   - Sometimes spark the ideas to me and other group members
   - Finish the task faster
   - Promote creative thinking
   - Encourage critical thinking
   - Enhance collaboration skills
   - Enhance negotiation skills
   Others: ____________________________
16. What are the drawbacks of brainstorming stage in groups? You can tick more than one item.
- Difficult to choose the most suitable ideas for the essay because different members have different point of view
- Time-consuming
- Boring
- Make me lose face because i can't think of the ideas
- Some members don't give opinions
- Stressful
- Noisy. I can't come up with my ideas
- Irrelevant. This activity is not related to developing skills of writing an essay.
- Others: __________________________________________

17. How do you rate the usefulness of the Facebook postings and correction activity to writing an essay?
- very useless
- useless
- Not sure
- useful
- very useful

18. What are the benefits of the Facebook postings and correction activity? You can tick more than one item.
- Relaxing
- Enrich ideas for specific topics
- Recognize the logic in organizing ideas in an essay
- Learn the techniques in arranging ideas in an essay
- Practise using grammar and structure in writing an essay
- Make better word choice in writing an essay
- Build up confidence
- Enhance collaboration among friends
- Enhance communicative skills
- Enhance negotiation skills
- Improve or sharpen the technical skills
- Keep informed
- Self-adjust from your own and your friend's errors
- Promote participation and feedback between students
- Make me feel more responsible for my writing and my group's work
- Foster me learn/ participate actively
- Convenient
- Others: __________________________________________

19. What are the drawbacks of the Facebook postings and correction activity? You can tick more than one item.
- Boring
- Time-consuming
- Stressful
- Easy to cause arguments with friends
- Easy to lose face
- Irrelevant. This activity is not related to developing skills of writing an essay.
- Others: __________________________________________

20. How do you rate the usefulness of the Google quizzes (Google form) to writing an essay?
- very useless
- useless
- Not sure
- useful
- very useful

21. What are the benefits of the Google quizzes (Google form)? You can tick more than one item.
Interesting □  Competitive □  Time saving □  Encouraging because of instant results and correct answers shown
□  Help build up vocabulary and collocations □  Help review skills learnt in class □  Encourage me to check more vocabulary and learn more useful structures
□  Others:

22. What are the drawbacks of the Google quizzes (Google form)? You can tick more than one item.
□  Boring □  Time-consuming □  Stressful □  Irrelevant. This activity is not related to developing skills of writing an essay.
□  Others:

23. How do you rate the usefulness of the vocabulary games in groups to writing an essay?
□  very useless □ useless □ Not sure □ useful □ very useful

24. What are the benefits of the vocabulary games in groups? You can tick more than one item.
□  Create interesting learning atmosphere □  Create a competitive learning environment
□  Build up or review useful language for writing □  Build up confidence
□  Enhance collaboration among friends □  Enhance communicative skills
□  Enhance negotiation skills □  Improve or sharpen the technical skills
□  Others:

25. What are the drawbacks of the vocabulary games in groups? You can tick more than one item.
□  Boring □  Time-consuming □  Stressful □  Noisy. It gives me a headache.
□  Irrelevant. This activity is not related to developing skills of writing an essay.
□  Others:

PART 2: THE BLENDED LEARNING IN GENERAL
1. What do you like best in this course? Why?

2. What do you like least in this course? Why?

3. What improvements have you made after this thirteen-week course? Why?

4. What activities help you make those improvements?

5. What areas of your writing competence haven’t seen any improvement?

6. How do you rate the effectiveness of this learning mode?
7. What do you suggest to make the course more effective?

This is the end of the questionnaire. Thank you.

Appendix 3
Detailed descriptions on the course components of the experimental group

a. Online extended readings
With the provided topic for the next class, students in groups searched for relevant reading passages online. They chose their favored passage, then made a mind map summarising the key information and posted the passage onto the class Facebook group. On the next class meet, groups took turns to give the mind map presentation to the whole class. The class then voted on the best presentation of the day.

b. Mind map presentations
With the information taken from the online reading or group discussion, students in groups made a mind map with key notes summarising the key information of the reading and added decorations depending on their creativity. Each member of the group took charge of one part of the presentation, got ready and together delivered the presentation to the whole class.

c. Brainstorming sessions
Brainstorming sessions were a norm in almost every class meet. Students worked together to discuss and gather ideas for some specific topic. They then made a mind map summary of ideas before it was rotated to various groups for revision or adjustments. Various techniques were used for exchange of ideas and fun learning atmosphere.

d. Essay analysis
Frequent opportunities were created for students to work in groups, pairs or individually to analyze a part (thesis statement, introduction, a body paragraph …) or a complete essay for error recognition or modification. Essay analysis could be in forms of paper work or a blended Facebook posting.

e. Discussion sessions
Students had discussion sessions in most class meets since group work or collaborative learning help boost the students’ talking time and lead to more student ownership of responsibility for that learning (Lowman cited in Laal, Laal and Kermanshahi, 2012). To offer students more exposure, various techniques of group formation including traditional and technological applications were used (e.g. random paper notes, https://flipquiz.me/grouper, https://www.randomlists.com/team-generator). Group work with peer support would increase the possibilities of success, which can be a trigger to intrinsic motivation (Garon-Carrier et al., 2015).

f. Facebook group
This acted as the main channel for interaction between teacher and learners throughout the course. In addition to announcements, reminders, lesson summaries and collections of useful phrases provided by teacher, students posted their works, read other friends’ works and gave comments or corrections and read teacher’s corrections. Also, they could post the online reading passages, the collection of vocabulary they learned together with the definition and examples, etc.

g. Vocabulary games
To break the boring atmosphere of some traditional writing classes, students joined a variety of traditional pen and paper or technology assisted games such as hangman, hot seat, running dictation, Kahoot, puzzle, quizlet, etc.
h. Quizzes
A few quizzes were given to test students’ ongoing progress and vocabulary range at various stages of the course. Quizzes (in Google forms) were posted onto the class Facebook group to fit students’ interest in technology and to go green for the environment.

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