Research article

English as a foreign language students' acceptance of Google Classroom in writing classes: A case study in Vietnam

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ARTICLE INFO

ABSTRACT

Google Classroom is a virtual education platform created by Google that allows both instructors and learners to actively participate in educational environments inside and outside of the classroom in an innovative way. This research aims to determine how university students perceived the adoption of Google Classroom in writing classes. This research was a convergent parallel mix-methods approach in which data were gathered through a 5-point Likert scale questionnaire and semi-structured interviews. The participants of this study included 130 university students in Vietnam. The results revealed that students expressed their approval of using Google Classroom in writing classes and that they had a positive view since it benefited them greatly in their learning writing process. This study suggests practical implications for language educators to use Google Classroom in writing classes.

1. Introduction

In today's modern world, everything is carried out by humans utilizing digital technology [1]. Because of this, the advancement of technology has an impact on everyone's daily activities as well as changes to all areas or sectors of human existence, including education [2]. With the introduction of new mass and private communication techniques at the beginning of the 20th century, a revolutionary type of education emerged [3,4]. It is known as distance learning, which occurs at a convenient time and in both close-by and remote physical sites [3]. Moore [5,6], who develops distance education theory, proposes the concept of transactional distance. He states that it is a difference in understandings and perceptions that could prevent participants in a teaching-learning scenario from effectively communicating with one another or from feeling emotionally connected. To provide such a learning environment, one of the indispensable technological embodiments that could be used in the field of education and support Moore's theory is Google Classroom [7].

Google Classroom is an online tool targeted at educators and designed to help teachers organize, create, and evaluate tasks in a paperless manner [8]. Hence, it should be used and applied consistently and included in linguistic processes [9]. It has been hypothesized that the main reasons why English teachers encounter so many difficulties while attempting to teach writing are a lack of time and packed classrooms, both of which may lead to a lack of practice and instruction. Although teaching writing is one of the most difficult tasks, advances in technology have altered how writing is taught today [10]. Through the provision of electronic feedback, Google Classroom is utilized as a complementary teaching tool, and it helps teachers save time and effort [11].

Few studies, however, have looked into students' adoption of Google Classroom in writing classes. Consequently, the purpose of

this research is to provide a full picture of the adoption of Google Classroom among university students in writing classes. Taking into account the theoretical background, the research questions are as follows.

1. To what extent do university students accept Google Classroom in writing classes?
2. Why do university students accept the use of Google Classroom in writing classes?

2. Literature review

2.1. Writing

Among the four major skills in English learning, writing, which is productive, is believed to be a challenging skill for learners to acquire [12]. Writing focuses on producing language rather than obtaining it, especially in the context of English as a foreign language (EFL) [13]. According to Harmer [14], writing is an ongoing activity that stems from the writer's ideas for what and how to say them.

Moreover, Geyte [15] defines writing as a set of letters or symbols that are written or marked as a means of communication. This view suggests that writing is the communicative process of creating a piece of written language designed to be read. According to Nunan [16], writing is a very difficult cognitive endeavor, where the writer must show complete control over all the factors. Writing can be defined as a mental activity in and of itself; it is not simply the transcription of spoken words into written symbols. As a way to communicate and a channel of communication, it creates a permanent record [17].

Although learning to write is thought to be a complex and challenging ability, Kurotun [18] outlined several benefits of teaching writing to learners, including reinforcement, language development, learning style, and writing as a skill.

When all of the aforementioned points of view are considered, writing is seen as a complex process including an individual's effort to explain and express ideas to the target audience. Writing thus plays a significant part in the language learning process.

2.2. Google Classroom

On August 12, 2014, Google Classroom was released as a new application by Google [19]. In terms of advantages, it is regarded as one of the top platforms available for improving teachers' instruction, and it additionally serves as a free online tool for educators who want to easily assign tasks, distribute, and mark assignments without using paper [8]. In other words, Google Classroom is well equipped with features that enable both teachers and learners to use it easily [20]. Hence, the lecturers can simultaneously transmit the assignment to all students using Google Classroom. Iftakhar [21] explains that the best feature offered by the Google platform is Google Classroom, which students can utilize to access information about the course material and save it for later use. As a result, everyone has access to it on their laptops or other electronic personal devices without paying fees for installation. Second, Google Classroom is a positive breakthrough in education since it provides educators and students with convenient access anywhere and whenever they choose, provided they have an internet connection [22]. By doing so, the student's social interaction and feeling of belonging to their courses are combined. In addition, Google Classroom offers users many benefits that are supported by the theory of transactional distance [5,6]. In other words, Google Classroom has provoked and changed educational situations. In particular, Gupta and Pathania [23] share a similar idea that Google Classroom facilitates collaborative learning or encourages collaboration between students. For example, teachers can post lessons here and offer learners comments; students can also submit files and leave their notes. They can collaborate on files and assignments, resulting in the greatest assignment. In addition, Moore [5,6] emphasizes the three main components of distance education conversation, structure, and learner autonomy. It is thought that for effective learning to take place, teachers, students, and educational institutions must all overcome transactional distance [24]. According to Moore [6], the degree of interaction between students and teachers as well as among students is dependent on the amount of conversation or engagement, the rigidity of the course structure, and the level of student autonomy.

Despite several noteworthy advantages, Google Classroom has some notable drawbacks for users [25]. One drawback is that Google Calendar only has a few integrated features, which could make managing due dates and material more difficult. In other words, this platform lacks a notification tool, so the students must be diligent in updating manually so that they can keep up with the latest announcements from their teachers [26]. In addition, according to Syafi'i [27], running an online Classroom is difficult since Google Classroom requires a fast internet connection, a computer in good condition with the bare minimum requirements for a multitasking device, and a smartphone to run the software. As a consequence, students are not able to use the tool without having access to computers or smartphones with a strong internet connection. Although Google Classroom has some challenges for users, it is believed to be a promising platform for English language teaching and learning, particularly in the online environment.

2.3. The importance of Google Classroom in developing writing skills or enhancing students' writing motivation

Because Google Classroom offers a personalized, collaborative, and easy-to-use digital platform for writing assignments and feedback, it significantly contributes to students' writing motivation and skill development [21,28]. Google Classroom helps students improve the components of writing ability including content, organization, vocabulary, language use, and mechanics [39]. It provides resources to make the writing process more efficient and inspires students to write in a variety of ways, which eventually results in better writing abilities and higher motivation [29]. Numerous studies have demonstrated how well Google Classroom works to enhance students' English language proficiency. According to Haggag [30], students' writing performance improved when they used Google Classroom for learning activities and developed a positive attitude. In a study conducted by Fonseca and Peralta [31], the

researchers shared a similar idea of the importance of Google Classroom in writing classes that students who were taught utilizing blended learning using Google Classroom had superior writing skills than those who were taught using traditional techniques. Additionally, Albashtawi and Bataineh [29] concluded that Google Classroom can significantly enhance students' proficiency in English as a foreign language, particularly in reading and writing. From what has been shown, it is evident that Google Classroom plays a crucial role in developing students' writing skills and enhancing their writing motivation.

3. Materials and methods

3.1. Research design

This study employed a convergent parallel mix-methods approach to gain a comprehensive and in-depth overview of students' acceptance of Google Classroom in writing classes. Mertens [32] and Creswell [33] defined mixed-method research as a study in which the researcher uses not only qualitative but also quantitative methods to gather data, analyze, integrate the results, and reach conclusions. In this study, both quantitative and qualitative strands were employed concurrently with equal weight to achieve a comprehensive interpretation of data based on the power of triangulation [40]. Both quantitative data (from the survey questionnaire) and qualitative data (from semi-structured interviews) were collected at the same time and analyzed separately. The results were then interpreted together [41,42] (See Fig. 1).

3.2. Participants

The population of this study was based on convenience sampling since it is more time-saving than the others [34]. To calculate the total size of participants, G*Power software (version 3.1) was employed by a priori power analysis for one sample group with the following input parameters: a two-tailed test, an effect size of d = 0.3, a significance level of $\alpha = 0.05$, and the needed level $(1 - \beta) = 0.8$. The result from the software suggested a population of 90. Therefore, in this research, 130 university students were involved from a university located in the Mekong Delta, Vietnam. The participants were students who were taking English preparation courses at university. These students typically pursued undergraduate degrees in various majors, including language, graphic design, hotel management, and business. For the semi-structured interviews, ten randomly selected participants were invited to take part in the interviews where they could express their own opinions about the adoption of Google Classroom in writing class. Those ten students got used to using this platform in their writing classes over a period of three months. The participants voluntarily became involved in data collection procedures, as the study was approved by the English Department of the university. Written informed consent was obtained from all the participants prior to the data collection process.

3.3. Instruments

In the study, the two major instruments employed to collect the data were a questionnaire and an interview protocol.

In the first part, a quantitative approach using questionnaires was utilized to collect data on students' adoption of Google Classroom in writing classes. The 32-item questionnaire was divided into eight constructs modified from UTAUT (Unified Theory of Acceptance and Use of Technology) developed by Venkatesh et al. [35]. The model was modified since the current research aimed to investigate students' acceptance of using Google Classroom in writing classes. Therefore, the variables (age, gender, experience and voluntariness of use) were deleted in the modified version. The modified UTAUT model is presented in Fig. 2.

The online 5-point Likert scale questionnaire contains statements that are split into a scale from one (strongly disagree) to five (strongly agree). The investigated constructs to determine the students' adoption of Google Classroom include i) performance expectancy, ii) effort expectancy, iii) attitude toward using Google Classroom, iv) social influence, v) facilitating conditions, vi) self-–efficacy, vii) anxiety, and xiii) behavioral intention to use Google Classroom. Then, the reliability of quantitative data was statistically evaluated by the computer software Statistical Package for the Social Sciences (SPSS) version 20. As can be seen in Table 1, the results showed that Cronbach's alpha value was 0.90, which was good for conducting the study.

With the support of descriptive statistics, the data were examined. The degree of adoption was then determined by the mean scores
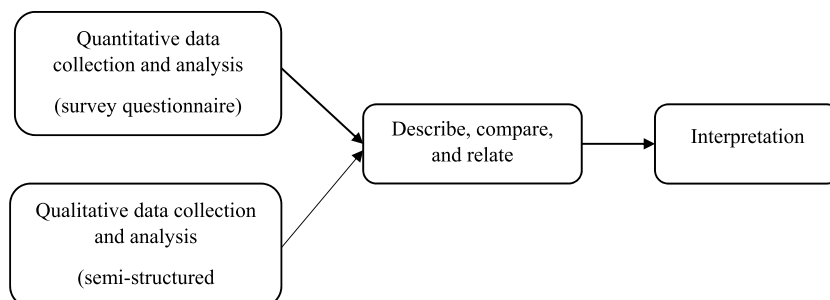

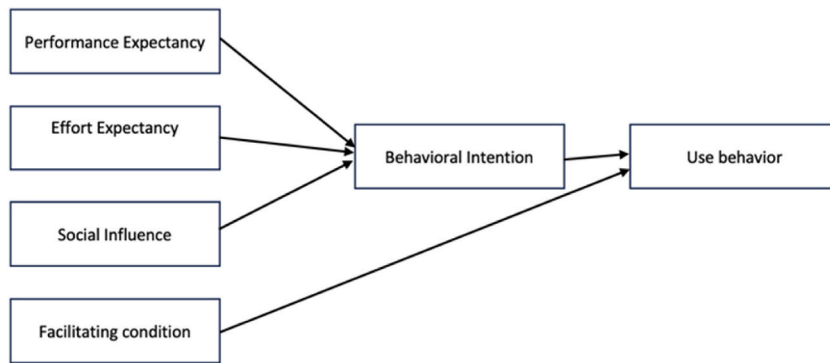**Fig. 1.** Flowchart of a convergent parallel mix-methods design.

Fig. 2. Modified model of unified theory of acceptance and use of technology (UTAUT).
Modified from "User acceptance of information technology: Toward a unified view", by Venkatesh, V., Morris, M. A., Davis, G. B., and Davis, F. D., 2003. *Management Information Systems Quarterly*, *27*(3), 425. https://doi.org/10.2307/30036540

Table 1
Table of Cronbach's alpha of eight constructs from the questionnaire.

Construct	Cronbach's alpha
Performance expectancy	0.86
Effort expectancy	0.89
Attitude toward using Google Classroom	0.95
Social influence	0.89
Facilitating conditions	0.86
Self–efficacy	0.88
Anxiety	0.90
Behavioral intention to use Google Classroom	0.94
Average	0.90

of each construct. Data were then interpreted using interpretation scores adapted from Oxford [36] as presented in Table 2.

In the second part, qualitative data were gathered by using semi-structured interviews to shed more light on students' adoption of Google Classroom in writing classes. The eight open-ended questions in the interviews are based on the eight themes from the questionnaire. According to Wallace [37], the questions in semi-structured interviews enable the researchers to guide the respondents into providing more thorough and in-depth answers.

3.4. Qualitative data analysis

The interview transcripts were successfully transcribed into text after being listened to multiple times. The researchers classified the information from each respondent's response based on the transcripts and notes from each interview session through interview protocols. Finding the themes that arose from the interview process served as the foundation for the analysis of the interviews [38]. The responses from the participants were compared and contrasted. The researcher directly cited the responses from the participants to provide evidence for each specific theme. The data were then evaluated and reported by the researcher. The researchers translated the Vietnamese interviewees' comments into English to use them as evidence while assessing the interview data. To assure reliability, English responses were sent to the interviewees to confirm and check whether their responses aligned with the Vietnamese translation. Additionally, the interview transcripts were checked by some colleagues for clarity and appropriate use of meaning.

3.5. Data collection process

The data collection process is displayed in the following diagram.

Table 2
The value of mean scores used to interpret the degree of the participants' adoption.

Levels	Range
Very high	4.5 to 5.0
High	3.6 to 4.4
Medium	2.5 to 3.5
Low	1 to 2.4

As depicted in Fig. 3, the data collection process involves several key steps. Firstly, questionnaires and interviews were conducted and piloted. This initial step involved designing both the questionnaire and interview protocols. The questionnaire was tested on a small group of individuals to identify any issues or ambiguities before full deployment. Similarly, pilot interviews were conducted to refine the interview process and questions. Secondly, the online questionnaire was sent to participants using Google Forms. Once the questionnaire was finalized, it was distributed to the target participants using an online platform like Google Forms for efficient data collection and easy aggregation of responses. Thirdly, the data from the questionnaire were synthesized, and interview schedules were arranged. After collecting responses from the questionnaire, the data were synthesized to identify patterns or trends. Additionally, based on the responses and research objectives, schedules for conducting interviews with selected participants were arranged. In the next step, researchers conducted interviews with selected participants. These interviews were semi-structured, allowing for a deeper exploration of certain topics or issues identified in the questionnaire responses. Following this, the data from interviews were synthesized to extract meaningful insights. This involved coding and categorizing responses to identify common themes or patterns across interviews. The data collected from both questionnaires and interviews were then analyzed collectively. This comprehensive analysis helped in gaining a holistic understanding of the research topic and addressing research questions or objectives effectively. Finally, based on the analysis of the collected data, a report was written to present the findings, conclusions, and recommendations.

4. Results

4.1. Results from the questionnaire

Table 3 below shows the data about students' adoption of Google Classroom in writing classes from 130 respondents. A descriptive statistics test was run to examine the overall adoption of Google Classroom in the writing class. The results of the test are displayed in Table 3.

Table 3 demonstrates that the mean score of students' adoption of Google Classroom in the writing class (M = 3.62, SD = 0.60) was at a high level.

To determine the average score of eight clusters, a descriptive statistics test was run. Table 4 displays the results of this test.

As displayed in Table 4, the mean scores of the participants' agreement degrees ranged from 3.23 (at a medium level) to 3.97 (at a high level). Specifically, the following indicators, including *performance expectancy* (M = 3.80, SD = 0.80), *effort expectancy* (M = 3.85, SD = 0.83), *attitude toward using technology* (M = 3.80, SD = 0.91), *social influence* (M = 3.84, SD = 0.80), *facilitating conditions* (M = 3.97, SD = 0.73), *self-efficacy* (M = 3.81, SD = 0.75) and *behavioral intention to use system* (M = 3.63, SD = 0.87), had a high level of agreement. Among those indicators, *facilitating conditions* received the highest mean score (M = 3.97, SD = 0.73). However, the indicator *anxiety* had the lowest mean score of 3.23, which is categorized at the medium level.

To conclude, as shown by the results, the fifth indicator, *facilitating conditions*, had the highest mean score of 3.97. It is indicated that the students believe they had enough devices and equipment to support their use of this platform. However, the seventh indicator, *anxiety,* had the lowest mean score of 3.23. The data in Table 4 are described in detail in the following parts.
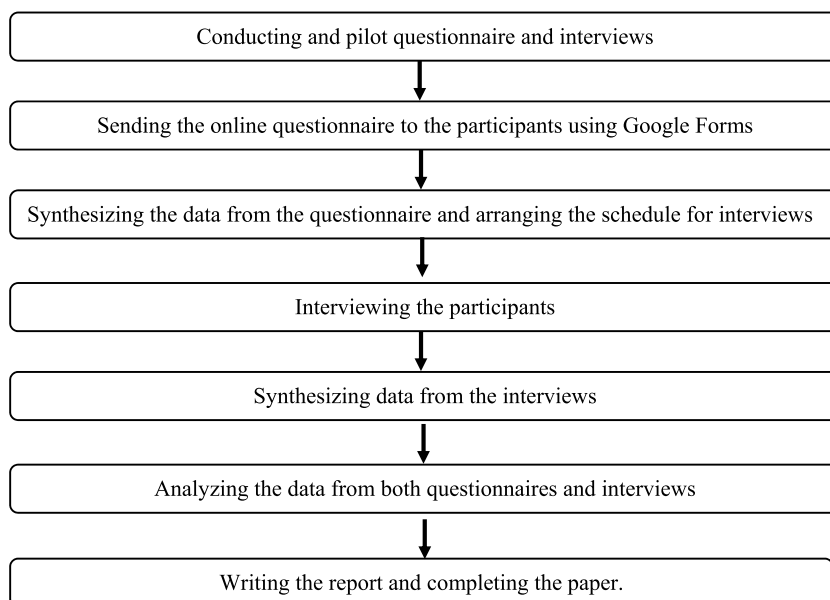
a. Performance expectancy

Fig. 3. Data collection process.

Table 3

Mean score of students' adoption of Google Classroom in writing classes.

	N	Minimum	Maximum	Mean (M)	SD
Students' adoption of Google Classroom in writing class	130	2.25	4.84	3.62	0.60

Table 4

Mean score of eight constructs of the adoption of Google Classroom in writing classes.

Constructs	N	Minimum	Maximum	Mean (M)	SD
Performance expectancy	130	1.00	5.00	3.80	0.80
Effort expectancy	130	1.00	5.00	3.85	0.83
Attitude toward using technology	130	1.00	5.00	3.80	0.91
Social influence	130	1.75	5.00	3.84	0.80
Facilitating conditions	130	2.00	5.00	3.97	0.73
Self – efficacy	130	1.75	5.00	3.81	0.75
Anxiety	130	1.00	5.00	3.23	1.00
Behavioral intention to use the system	130	1.00	5.00	3.63	0.87

Questions about the performance expectations of the learners are covered in this specific section. The four items that make up this section are listed below. The responses from the students to this specific section are presented in Table 5.

As shown in Table 5, most participating students believed that Google Classroom allowed them to complete their writing faster (M = 3.95, SD = 0.93). Following this, they found using this tool very useful in their writing class (M = 3.94, SD = 0.98). Next, they also responded that using this platform made them learn writing better (M = 3.68, SD = 0.95). Finally, students indicated that using Google Classroom in their writing class helped them to increase their score (M = 3.62, SD = 0.97).

In short, according to the summary above, the majority of respondents agreed that using Google Classroom for writing classes may help them save time. They also indicated that it was a very useful tool for learning writing.

b. Effort expectancy

This section, which has four items, refers to questions on effort expectancy. Table 6 summarizes students' answers to this section.

As shown in Table 6, students responded that using Google Classroom was easy in their writing class, which gained the highest level of agreement (M = 3.95, SD = 0.93). Next, they also expressed that the instructions on Google Classroom are clear and understandable (M = 3.93, SD = 0.95). Following this, they believed that using Google Classroom in writing class did not take much time (M = 3.86, SD = 0.92). Finally, several participants skilfully used Google Classroom in the writing class (M = 3.65, SD = 0.10).

In conclusion, the description above indicates that the majority of participants accepted that Google Classroom was easy to use in their writing class since the instructions on this online learning tool were clear and understandable.

c. Attitude toward using Google Classroom

This part includes questions on students' attitudes toward using Google Classroom. This section consists of four items, as shown in Table 7.

As shown in Table 7, students responded that using Google Classroom in learning writing was very good, with the highest level of agreement (M = 3.84, SD = 0.95). Next, most students believed that using Google Classroom in their writing class was a good idea. From the above table, the data show that item number nine had a mean value of 3.82, which means that this particular point is categorized at a high level. Following this, the participating students thought Google Classroom made their writing class interesting (M = 3.81, SD = 0.97). Finally, the item "*I'm interested in using Google Classroom*" had a mean value of 3.76. This particular point is classified at a high level.

From what has been discussed above, it enabled the researchers to conclude that most of the respondents agreed that using this platform in writing classes was good, and it made their writing class interesting. Those students also indicated that they were interested in utilizing this one.

d. Social influence

Table 5

Students' adoption of Google Classroom in writing classes in terms of performance expectancy.

	N	Minimum	Maximum	Mean (M)	SD
I find using Google Classroom very useful in my writing class.	130	1.00	5.00	3.94	0.98
Using Google Classroom allows me to complete my writing tasks faster.	130	1.00	5.00	3.95	0.93
Using Google Classroom in my writing class helps me to increase my score.	130	1.00	5.00	3.62	0.97
Using Google Classroom in writing class makes me learn writing better easily.	130	1.00	5.00	3.68	0.95

Table 6
Students' adoption of Google Classroom in writing classes in terms of effort expectancy.

	N	Minimum	Maximum	Mean (M)	SD
I feel at ease when using Google Classroom in writing class.	130	1.00	5.00	3.95	0.93
The instructions on Google Classroom are clear and understandable.	130	1.00	5.00	3.93	0.95
I skillfully use Google Classroom in writing class.	130	1.00	5.00	3.65	0.10
Using Google Classroom in writing class does not take a lot of their time.	130	1.00	5.00	3.86	0.92

Table 7
Students' adoption of Google Classroom in writing classes in terms of attitude toward using Google Classroom.

	N	Minimum	Maximum	Mean (M)	SD
Using Google Classroom in my writing class is a good idea	130	1.00	5.00	3.82	1.03
Google Classroom makes my writing class interesting	130	1.00	5.00	3.81	0.97
Using Google Classroom in learning writing is very good.	130	1.00	5.00	3.84	0.95
I'm interested in using Google Classroom	130	1.00	5.00	3.76	0.96

This section consists of questions on social influence. This section includes four items displayed below.

As shown in Table 8, students responded that their teachers encouraged them to use Google Classroom in their writing classes, which obtained the highest level of agreement (M = 3.93, SD = 0.87). Next, most students believed that their school encouraged them to use Google Classroom in their writing class. The data indicate that the mean value of this item was M = 3.92, SD = 0.89, meaning that this particular point is categorized at a high level. Following this, the participating students thought that using Google Classroom was popular at their school (M = 3.88, SD = 0.93). Finally, the data show that the idea of "*People who influence my study think that I should use Google Classroom in the writing class*" had the lowest mean value (M = 3.64, SD = 0.98).

In conclusion, most of the respondents agreed that using this online platform in their writing class was encouraged mostly by their teachers. Moreover, they also indicated that using Google Classroom was popular in their school.

e. Facilitating conditions

This particular section refers to questions on facilitating conditions in assisting students in using Google Classroom. This section has four items, as shown in Table 9 below.

As shown in Table 9, students responded that they had enough necessary equipment and facilities when they used Google Classroom in their writing class. The data reveal that the mean value of M = 4.15, SD = 0.88, meaning that this particular point is categorized at a very high level. Next, most students responded that they always received support from other people in solving difficulties when using Google Classroom, and they also indicated that using it in their writing class was suitable. The data show that the two items had a mean value of M = 3.92, meaning that these particular points are categorized at a high level. Following this, participating students indicated that they had the necessary knowledge of how to use Google Classroom in the writing class (M = 3.9, SD = 0.85).

In conclusion, the description above indicates that most of the respondents were well equipped with the necessary facilities when they used Google Classroom in their writing class. In addition, they also indicated that they had good knowledge of how to use this learning tool. Additionally, they could obtain support from others when having difficulties.

f. Self-efficacy

This particular section refers to questions on students' self-efficacy. This section consists of four items, as presented in Table 10 below.

As shown in Table 10, the majority of students indicated that they could complete their writing tasks on Google Classroom if they had more time and available resources on it. The data indicate that the mean value of M = 3.96, SD = 0.81, meaning that this particular point is categorized at a high level. Next, most students responded that they could complete their writing tasks on Google Classroom if there was a supporting system on Google Classroom. The data indicate that the mean value of M = 3.86, meaning that these particular points are categorized at a high level. Following this, the participating students believed that they could complete their writing tasks on Google Classroom if there was help from other people when they did not know the answers (M = 3.79, SD = 0.88), which received a

Table 8
Students' adoption of Google Classroom in writing classes in terms of social influence.

	N	Minimum	Maximum	Mean (M)	SD
People who influence my study think that I should use Google Classroom in writing class	130	1.00	5.00	3.64	0.98
My teachers encourage me to use Google Classroom in writing class.	130	2.00	5.00	3.93	0.87
My school encourages me to use Google Classroom in writing class.	130	2.00	5.00	3.92	0.89
Using Google Classroom is popular at my school	130	1.00	5.00	3.88	0.93

Table 9

Students' adoption of Google Classroom in writing classes in terms of facilitating conditions.

	N	Minimum	Maximum	Mean (M)	SD
I have enough necessary equipment and facilities (Internet and laptops) when using Google Classroom in writing class.	130	1.00	5.00	4.15	0.88
I have the necessary knowledge of how to use Google Classroom in writing class.	130	1.00	5.00	3.90	0.85
I always get support from other people in solving difficulties when using Google Classroom.	130	1.00	5.00	3.92	0.91
Using Google Classroom in my writing class is suitable.	130	1.00	5.00	3.92	0.84

Table 10

Students' adoption of Google Classroom in writing classes in terms of self-efficacy.

	N	Minimum	Maximum	Mean (M)	SD
I still complete my writing tasks on Google Classroom even when I am not forced to use it.	130	1.00	5.00	3.63	0.97
I can complete my writing tasks on Google Classroom if there is help from other people when they don't know the answers.	130	1.00	5.00	3.79	0.88
I could complete my writing tasks on Google Classroom if I have more time and available resources on it.	130	1.00	5.00	3.96	0.81
I can complete my writing tasks on Google Classroom if there is a supporting system on Google Classroom.	130	1.00	5.00	3.86	0.85

high level of agreement. Finally, the data showed that students could complete their writing tasks on Google Classroom without being forced to use it by other people (M = 3.63, SD = 0.97).

In conclusion, the description above indicates that most of the respondents showed good self-efficacy. Particularly, they highlighted that they could complete their writing tasks on Google Classroom if they had more time and available resources on it.

g. Anxiety

Questions about students' anxiety related to utilizing Google Classroom in the writing class are covered in this specific area. The four items that form this section are listed below. The responses from the students to this specific section are presented in Table 11.

As shown in Table 11, the participating students responded that they were afraid of losing their writing when they pressed the wrong button (M = 3.51, SD = 1.15). Following this, they hesitated to use Google Classroom in their writing class because they were afraid of making mistakes, but they did not know how to correct them (M = 3.27, SD = 1.20), which was at the medium level of agreement. Next, some of them also responded that they felt nervous about using Google Classroom in their writing class (M = 3.14, SD = 1.20). Finally, students indicated that Google Classroom made them afraid to study writing (M = 3.00, SD = 1.21), which had the lowest mean score and was at a medium level.

In conclusion, the description above indicates that generally, Google Classroom did not make them afraid of studying writing, and they were not worried about using Google Classroom in their writing class.

h. Behavioral intention to use the system

This section specifically relates to questions concerning students' behavioral intentions to utilize Google Classroom. The responses from the students to this particular section, which has 4 items, are gathered in Table 12.

As shown in Table 12, the participating students responded that they intended to use Google Classroom in their writing class (M = 3.78, SD = 0.86), which had the highest level of agreement among the four items. Following this, students indicated that they would use Google Classroom regularly to study writing (M = 3.68, M = 0.96), which had a high level of agreement. Next, they intended to use Google Classroom to study writing in the next three months (M = 3.60, SD = 0.97), which was at a high level of agreement. Finally, some of them also responded that they planned to use Google Classroom to study writing in the next three months (M = 3.46, SD = 1.01), which resulted in a medium level of agreement.

In conclusion, the description above indicates that participants had the intention to use Google Classroom to study writing shortly.

Table 11

Students' adoption of Google Classroom in writing classes in terms of anxiety.

	N	Minimum	Maximum	Mean (M)	SD
I feel nervous about using Google Classroom in my writing class.	130	1.00	5.00	3.14	1.20
I am afraid of losing my writing when I press the wrong button on Google Classroom.	130	1.00	5.00	3.51	1.15
I hesitate to use Google Classroom in writing class because I was afraid of making mistakes but I don't know how to correct them.	130	1.00	5.00	3.27	1.20
Google Classroom makes me afraid to study writing.	130	1.00	5.00	3.00	1.21

Table 12
Students' adoption of Google Classroom in writing classes in terms of behavioral intention to use the system.

	N	Minimum	Maximum	Mean (M)	SD
I intend to use Google Classroom in writing class.	130	1.00	5.00	3.78	0.86
I intend to use Google Classroom to study writing in the next three months.	130	1.00	5.00	3.60	0.97
I plan to use Google Classroom to study writing in the next three months.	130	1.00	5.00	3.46	1.01
I will use Google Classroom regularly to study writing.	130	1.00	5.00	3.68	0.96

Moreover, they would use Google Classroom regularly to study writing.

4.2. Results from the interviews

To gain insights into students' adoption of Google Classroom in writing classes, ten students were asked questions based on the eight clusters from the questionnaire.

From the analysis of the interviews, 100 % of the participants supported that Google Classroom was a good tool for their writing tasks since it was fast, convenient, and easy to access. They shared a similar idea that using Google Classroom in writing classes was a good idea because it brings them many benefits. The participants' responses are presented in the following table.

Question	The example of responses
1. How does Google Classroom help you when you learn writing?	"Using Google Classroom helps me a lot when I learn writing. For example, I can follow the deadlines for my writing tasks, and I can access it easily with the link I have already marked before. It doesn't take me a long time to log in many times." (Participant D)
2. What do you think about using Google classroom in your writing class?	"I find it very convenient when I write something and then I attach it in the comment section where I can submit it. Also, when there is a notification from teachers, I can get it immediately. Besides, the functions on Google Classroom are simple and user-friendly. You know, I like typing on laptops rather than writing on paper, so I can complete the writing tasks on Google Classroom faster than writing on paper" (Participant P)
3. In your opinion, is it a good idea to use Google classroom in writing class? Why (not)?	"I think it is a good idea to use Google Classroom in writing classes because I can see my friends' writing products, and we can give feedback or comments to each other. It is a good way for us to learn new ideas from our friends.'' (Participant Z)

Additionally, the findings from the interviews showed that most students were introduced to and encouraged to use Google Classroom mostly by their teachers. Nine out of ten participants indicated that they knew and used Google Classroom when they studied at university, whereas one participant shared that she started using it when she was a high school student. The participants' responses are displayed as follows.

Question	The example of responses
4. Does anybody encourage you to use Google classroom when you study writing? (Who encourages you the most to use Google Classroom?)	"When I attend an English class at university, my teacher, who teaches me English level 3, introduces and encourages me to use Google Classroom in our writing class." (Participant K) "Well, I have used Google Classroom since I was in high school. At that time, my teacher introduced our class and encouraged us to use it. Now, when I study at university, I also use it in my writing class" (Participant J)

When asked about facilitating conditions in assisting students in using Google Classroom, all participants confidently answered that they had enough necessary equipment and facilities, including the internet, smartphones, and laptops, when they used Google Classroom in their writing class. They also mentioned that they had the necessary knowledge of how to use Google Classroom in the writing class since they found that the functions on Google Classroom were simple and user-friendly.

Question	The example of responses
5. Do you think that you have enough facilitating conditions when you use Google classroom? (What types of facilitating conditions do you have? (Internet, mobile devices, labs, …)	"I don't think we need too many facilities when using Google Classroom. I just need a smartphone, then I can easily text the paragraphs on Google Classroom. All the functions on Google Classroom that I have used are easy to use and access with my smartphone" (Participant Z) "There are two kinds of equipment which are common when using Google Classrooms: laptops and smartphones, and I surely have enough of those kinds of them." (Participant P)

Moreover, when they were asked about their self-efficacy, 90 % of participants indicated that they could complete their writing tasks on Google Classroom if they had more time and available resources. Those students also mentioned that they could complete their writing tasks on Google Classroom without being forced to use it by other people. Among ten participants, one thought that he would

use Google Classroom when his teacher gave assignments on it.

Question	The example of responses
6. Do you think that you have enough facilitating conditions when you use Google classroom? (What types of facilitating conditions do you have? (Internet, mobile devices, labs, …)	"For me, if no one forces me to use it, I still use Google Classroom for my writing because of the above- mentioned advantages. It will be better if there are some available resources on it for my ease" (Participant Y) "I think that I will use Google Classroom if my teacher gives me an assignment on it. If not, I don't know what the writing tasks are, so what should I write?" (Participant B)

Next, when the participants were asked to share their anxiety when using Google Classroom in their writing class, they indicated that they did not feel worried when they used this tool in their writing class. However, they mentioned some difficulties that they might face, such as poor internet connections and being unable to change deadlines.

Question	The example of responses
7. Are you worried about using Google classroom in learning writing? Why/ Why not? What are difficulties you face while using Google classroom in your writing class?	"I don't feel worried about anything when I use it. In fact, I know how to use Google Classroom and everything is quite simple for me, but if you ask me about one difficulty, I think it is the poor internet connection, or sometimes it lags" (Participant F) "One challenge that I could mention is the deadline. I mean, I cannot change the deadline which is set by my teachers on Google Classroom. Therefore, I must follow the deadline strictly" (Participant H)

Finally, when sharing their intention to use Google Classroom, all of the participants had a similar idea that they would use Google Classroom for their writing tasks in the future. They indicated that they would use it if they had opportunities or if their teachers assigned the tasks on Google Classroom.

Question	The example of responses
8. What are your intentions or plans to use Google classroom to study writing? (Do you plan to use GC in the next three months?) Why/why not?	"Definitely, I will use it in the next three months because I think it's convenient, easy, and comfortable. I am the type of person who prefers to use something that I am familiar with" (Participant P) "I will use Google Classroom in the future, but I hope that my teachers will assign the writing tasks as well as provide us with books or other materials on it for my ease" (Participant G)

5. Discussion

This study's primary goal is to examine students' adoption of Google Classroom in their writing classes. This study reveals that the degree of the students' adoption of Google Classroom, in general, is high (M = 3.62, SD = 0.6). Therefore, the findings from the analysis showed that the students held positive adoption of using Google Classroom, and it is thought to be a useful tool in writing class. This finding is consistent with studies by Syafi'I [27]; Albashtawi and Bataineh [29], who claimed that student satisfaction with Google Classroom demonstrates that it is a useful tool for active learning.

Both the questionnaire and interview findings indicate that 90 % of the respondents believed Google Classroom was considered a platform that was simple and easy to operate and obtain. This finding is in line with a study by Negara [8], who claimed that Google Classroom was one of the best platforms that aim to simply create, distribute, and grade assignments in a paperless way. Besides, approximately 80 % of the participants perceived that by using Google Classroom in their writing class, they could quickly obtain information about the class, notifications, and materials. Additionally, they believed that it was a good idea to utilize Google Classroom since it facilitated collaborative learning or encouraged collaboration between them, and teachers could upload materials. These findings are consistent with the results from Iftakhar [21], and Gupta and Pathania [23].

In addition, regarding facilitating conditions that assist students when they use Google Classroom in their writing class, the findings from both questionnaires and interviews reveal that students had enough facilities and necessary equipment, such as laptops, smartphones, computers, or internet connections. This finding is in line with the study by Syafi'I [27], who said that Google Classroom is available to all users, who can access the tool for using various devices with all types of browsers, from anywhere, anytime. In other words, Google Classroom is compatible with multiple devices and equipment.

In addition, in terms of students' anxiety, the findings also show that students were not worried much about using Google Classroom in their writing class, but they were afraid of the deadline and poor internet connection when utilizing this platform. This finding is consistent with a study by Yahfizham et al. [26], who mentioned that one of the notable disadvantages was the limitation of integrated options to Google Calendar, which might help handle assignment deadlines and materials by the time decided. Additionally, this finding is consistent with the claim of Syafi'I [27], who contends that one of the notable downsides of using this platform is the internet connection.

Moreover, social influence and behavioral intention to use Google Classroom may be the two new findings in this study, which are not the view of any literature found. The findings from both the questionnaire and interviews reveal that students were introduced to and encouraged to use Google Classroom for their writing tasks mostly by their teachers. The results indicate that the participants had the intention to use Google Classroom for their writing tasks in the future, especially in the next three months since they found that this platform offers them several benefits.

6. Limitations

While the present study was successful in accomplishing its goals, there are two intrinsic flaws. First, the findings from a specific area of the Mekong Delta in Vietnam may not be applicable to other teaching settings. The second aspect, time limits, meant that the findings from the interview data were insufficient to provide a clear picture of the number of learners who eventually accepted utilizing Google Classroom for their writing tasks.

7. Conclusion

The present study has reached vital conclusions about students' acceptance of Google Classroom in their writing classes. It reported aspects such as performance expectancy, effort expectancy, attitude toward using Google Classroom, social influence, facilitating conditions, self-efficacy, anxiety, and behavioral intention to use Google Classroom for their learning. The research revealed that students were pleased with their use of Google Classroom, and they had a positive perception about using Google Classroom in their writing class since it brought several advantages. First, Google Classroom was an easy and simple platform to use since the instructions on this online learning tool were clear and understandable. In addition, it also enabled students to complete their writing tasks faster and enhance their collaboration. Additionally, it made their writing class more interesting. Moreover, this platform is accessible by many different mobile devices, so students find it convenient for their learning. The results also highlighted the implications of Google Classroom for writing classes. Google Classroom should be conducted frequently to intensify students' writing performance. Therefore, increasing the number of classes on the Google Classroom platform would lead to an increase in writing skills and an increase in the number of positive grades. To assist students in obtaining the best learning results, it is also recommended that educational leaders implement the appropriate changes or provide adequate assistance to encourage learners and instructors to use this platform in writing classes. Therefore, Google Classroom can be an ideal tool for distance classes where teachers and students work together to achieve learning objectives in general and foster students' writing performance in particular.

Ethics statement

Data availability

Data will be made available upon request.

CRediT authorship contribution statement

Anh Tuan Pham: Writing – review & editing, Supervision, Resources, Methodology, Investigation, Conceptualization, Data curation, Formal analysis, Project administration, Software, Validation, Visualization. **Toan Bao Nguyen:** Writing – original draft, Visualization, Validation, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization, Project administration, Resources, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

APPENDIX 1. QUESTIONNAIRE

SECTION 1: Personal Information

Your gender: Male ☐ Female ☐
Your age: …

Major: ….
Email: ….

SECTION 2: Questions on English as a Foreign Language Students' Acceptance of Google Classroom in Writing Classes

Please answer the following statements by putting (✓) in a box, according to the following scale: 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), 5 (strongly agree).

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I find using Google Classroom very useful in my writing class.					
Using Google Classroom allows me to complete my writing tasks faster.					
Using Google Classroom in my writing class helps me to increase my score.					
Using Google Classroom in writing class makes me learn writing better easily.					
I feel at ease when using Google Classroom in writing class.					
The instructions on Google Classroom are clear and understandable.					
I skillfully use Google Classroom in writing class.					
Using Google Classroom in writing class does not take a lot of their time.					
Using Google Classroom in my writing class is a good idea					
Google Classroom makes my writing class interesting					
Using Google Classroom in learning writing is very good.					
I'm interested in using Google Classroom					
People who influence my study think that I should use Google Classroom in writing class					
My teachers encourage me to use Google Classroom in writing class.					
My school encourages me to use Google Classroom in writing class.					
Using Google Classroom is popular at my school					
I have enough necessary equipment and facilities (Internet and laptops) when using Google Classroom in writing class.					
I have the necessary knowledge of how to use Google Classroom in writing class.					
I always get support from other people in solving difficulties when using Google Classroom.					
Using Google Classroom in my writing class is suitable.					
I still complete my writing tasks on Google Classroom even when I am not forced to use it.					
I can complete my writing tasks on Google Classroom if there is help from other people when they don't know the answers.					
I could complete my writing tasks on Google Classroom if I have more time and available resources on it.					
I can complete my writing tasks on Google Classroom if there is a supporting system on Google Classroom.					
I feel nervous about using Google Classroom in my writing class.					
I am afraid of losing my writing when I press the wrong button on Google Classroom.					
I hesitate to use Google Classroom in writing class because I was afraid of making mistakes but I don't know how to correct them.					
Google Classroom makes me afraid to study writing.					
I intend to use Google Classroom in writing class.					
I intend to use Google Classroom to study writing in the next three months.					
I plan to use Google Classroom to study writing in the next three months.					
I will use Google Classroom regularly to study writing.					

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