

Lecturers' Perceptions of Google Docs for E-portfolios to improve students' IELTS Writing


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ABSTRACT

Keywords: Google Docs, e-portfolios, writing e-portfolios, writing performance

This study investigated teachers' perceptions of using Google Docs for writing e-portfolios to improve IELTS writing performance of non-English majors. Data were collected through semi-structured interviews with three Vietnamese lecturers, supported by the researcher's reflections, and analyzed using grounded theory coding procedures. The findings indicated that lecturers perceived the integration of Google Docs both positively and negatively. Specifically, they reported that the platform facilitates writing correction, encourages peer review, and promotes collaborative learning, helps students become more active and confident writers. However, several challenges were discovered including students' reliance on automatic correction, unstable Internet connectivity, and limited technological skills. Overall, the study highlighted key benefits and constraints of Google Docs-based e-portfolios in university writing instruction and offered practical solutions to address issues encountered in technology-enhanced learning environments.

Introduction

The Vietnamese Qualification Framework requires students to achieve level B1 of the CEFR for university graduation (Hoang, 2017). Therefore, they must take an English proficiency examination, including IELTS, TOEFL, TOEIC, or PET, and achieve a band score equivalent to CEFR B1 as their graduation requirement (Le, 2017, as cited in Pham & Bui, 2019). To meet the need for graduation, Vietnamese universities offer English-language courses for non-English majors to develop their English proficiency and equip them with examination skills.

Many undergraduates find English writing difficult to learn and develop (Le & Le, 2018). This skill is inherently complex, requiring learners to navigate multiple stages and manage multiple aspects, such as grammar, vocabulary, and idea development, before producing a final written work (Suvin, 2020; Lam, 2011, as cited in Nguyen & Pham, 2016). Furthermore,

Vietnamese students often struggle with a lack of motivation and a tendency to directly translate Vietnamese thoughts into English (Le & Le, 2018; Pham et al., 2020). Despite the effectiveness of the process method, English writing skills in Vietnam have been conventionally taught using a product-oriented approach (Pham et al., 2020). This traditional method often fails to engage students in their writing process, underscoring the need for tools that help them monitor their progress and achievements.

However, developing adequate writing skills is crucial for English learning, particularly in academic writing in higher education, where essay completion is the primary means of evaluating student achievement (Ho, 2024). Using electronic portfolios (e-portfolios) engages students directly in their writing process by enabling them to monitor their progress and document their achievements throughout their writing journey (Aygün & Aydin, 2016; Tran & Le, 2018).

E-portfolios have become more and more popular in higher education (McDermott-Dalton, 2021). Various online tools and platforms are used to create e-portfolios, and among them, Google Docs is a common tool for English writing instruction in universities (Hidayat, 2020). In the development of online learning, there may be a need for useful online applications for teaching and learning English, such as Google Docs.

In alignment with this global trend, Ton Duc Thang University has integrated Google Docs as a core platform for the English writing curriculum. Specifically, non-English majors preparing for the IELTS exam are required to submit weekly writing assignments via Google Docs. These submissions are systematically compiled into digital portfolios, which serve as the primary basis for ongoing review and in-class assessment. This approach effectively supports a process-based pedagogy, enabling more dynamic practice and comprehensive evaluation of students' writing development.

While existing research has investigated the use of Google Docs in writing and students' attitudes towards it (Alharbi, 2019; Ebadi & Rahimi, 2017) and the impact of writing e-portfolios from students' perspective (Azarfam et al., 2016; Karami et al., 2019), there has been little attention to investigating views of teachers about applying Google Docs for students' writing e-portfolios or using Google Docs-based portfolios. The full potential of this tool to enhance writing performance may go untapped if instructors' perspectives are not understood.

To address this gap, the current study aims to investigate lecturers' perceptions of using Google Docs as an e-portfolio tool to improve the writing performance of non-English major students attending online IELTS classes at the Creative Language Center of Ton Duc Thang University. The objectives of the study are to determine how teachers use Google Docs for writing e-portfolios to enhance students' IELTS writing and to explore the teachers' viewpoints on this application.

Literature review

IELTS academic writing

Regarding the test format, there are two tasks, including Task 1 and Task 2, in a sixty-minute IELTS writing test of the academic module, which is intended for candidates attending degree courses of higher education or applying for an academic profession (IELTS, 2021). Task 1 asks test takers to write a report of at least 150 words within twenty minutes to describe trends in a graph or processes in a diagram, and to make comparisons in changes of two different

objects, while Task 2 asks them to write a short essay of at least 250 words about forty minutes to discuss an issue, express their opinions about a matter, or finding solutions for a problem.

Regarding the assessment, the written answers to both tasks are marked out of 9 and evaluated against 4 criteria (IELTS, 2021). As the first criterion, ‘task achievement’ in Task 1, or ‘task response’ in Task 2, evaluates the relevance and correctness of the response to the task requirements. The second one, known as ‘coherence and cohesion’, assesses the coherent and cohesive organization of ideas. The third one, namely ‘lexical resources’, examines the quantity of words and the appropriate use of vocabulary. The last one, called ‘grammatical range and accuracy’, checks the variety and accuracy of grammar structures used in the written responses.

Among the four language skills in the IELTS examination, writing is considered one of the most challenging, and test takers' writing scores tend to be the lowest among the four skills (Nushi & Razdar, 2021). However, IELTS writing skills contribute to students' academic performance, particularly in university writing assignments, including making their work coherent through the use of discourse markers and familiarizing them with essay structure (Dang & Dang, 2021). Therefore, undergraduates must develop not only their IELTS writing performance but also their academic writing skills for their writing assignments.

E-portfolios

The definitions of e-portfolios

Electronic portfolios, or e-portfolios, are defined differently. As one of the original definitions, e-portfolios are considered as archives of multimedia products digitized and stored on an online platform, a web-based environment, or a digital device (Lorenzo & Ittelson, 2005). In the context of assessment, Yang et al. (2015) considered them as a type of formative assessment, a source of authenticity, a display of students' outcomes, a share of their works, a record of the processes of their reflective learning, a bridge to connect learning phases, and a source of frequent feedback for their improvements. Moreover, according to Chaudhuri and Cabau (2017), these are simply referred to as portfolios in digital format and are “interactive” platforms where students have ample opportunities to revise their products and reflect on their learning experience (p. 120). Furthermore, Kwok and Hui (2018) elaborately defined an e-portfolio as a digitalized “physical portfolio” documenting learning and development of a person, and as “a particular perspective” of the individual development archiving for the certain context that the portfolio is used to plan and assess the personal development, to display the individual works during the enhancement, and to carry out activities such as “guiding, tracking, and reviewing” (p. 334). To summarize, e-portfolios are collections of students' electronic or digital products that are intentionally used to support their learning and development.

The advantages and disadvantages of using e-portfolios

When online learning has bloomed, e-portfolios have drawn much more attention. Because e-portfolios can confer numerous benefits on teaching and learning, educational institutions are considering their use in classrooms (Barrot, 2016). However, implementing e-portfolios may also have drawbacks. Below are the advantages and disadvantages of using e-portfolios.

On the one hand, the use of e-portfolios is likely to be advantageous. Considered as “learner-centred” collections of work (Cummings & Maddux, 2010, as cited in Deneen et al., 2017, p. 488), e-portfolios emphasize the role of students in their learning, and enable them to monitor the process in different situations and moments (Yastibas & Cepik, 2015). In other words,

their central role is manifested in their ability to assess their digital products independently or provide feedback to another student (Azarfam et al., 2016). Furthermore, the application of e-portfolios can make their learning accessible and stimulating with impressive “audiovisual features”, allow them to create their portfolios in different formats, including texts, visuals, audios or videos, and suit the needs of the learners preferring learning with technology known as “digital natives” (Barrot, 2016, p. 288). In addition, students can store or archive a large volume of their digitized work when using e-portfolios (Aygün & Aydin, 2016; Poole et al., 2018). Another is that the use of e-portfolios can increase motivation to learn and satisfaction with assessment (Wang & Jeffrey, 2017). More specifically, they can be encouraged to reflect, make self-reflection, and develop their competence (Slepcevic-Zach & Stock, 2018). Additionally, using e-portfolios can facilitate the interactions of an individual with teachers and with other students through online discussions (Aygün & Aydin, 2016), promote process writing, self-assessment, peer assessment, and self-reflection (Lam, 2020), as well as enhance self-regulated and autonomous learning (Yang et al., 2015; Segaran & Hasim, 2021). In addition to these benefits, using e-portfolios can help reduce paper consumption and make editing, deleting, and adding easier (Ghany & Alzouebi, 2019). In summary, the use of e-portfolios can provide numerous benefits for education.

On the other hand, applying e-portfolios has some disadvantages. Yastibas and Cepik (2015) argued that the use of e-portfolios may be adversely affected because students may not be trained in self-assessment, reflection, technology, and metacognitive skills, and teachers may be inexperienced in implementing e-portfolios in their classes. Furthermore, Poole et al. (2018) reported that they found using e-portfolios difficult due to limited technological skills and poor Internet connectivity. In short, the use of e-portfolios can be problematic due to inadequate training in the e-portfolio process, low levels of computer literacy, and Internet connection issues.

Using e-portfolios in teaching writing

According to Cepik and Yastibas (2013), English language teaching has used e-portfolios to instruct, assess, and develop students' writing skills (as cited in Yastibas & Cepik, 2015). Several studies have been attracted to the use of e-portfolios in English writing courses.

To begin with, many studies have found that the use of e-portfolios improves students' writing performance. Heath and Malecka (2016) conducted action research with 36 students at the University of New South Wales Institute and found that using the writing e-portfolio on Wikispaces could improve their writing accuracy through feedback and revision. In the same vein, Masaeli and Chalak (2016) conducted a quasi-experimental study with 64 Iranian pre-intermediate learners at a language institution and found that the experimental group taught using the e-portfolio outperformed the control group on a post-test in writing. Using the same method as the previous study, Barrot (2020) explored the effects of the Facebook-based e-portfolio on the writing performance of eighty-nine freshmen at a private university in the Philippines. The group using the e-portfolio on Facebook achieved higher post-test writing scores than the group using a traditional paper-based portfolio. To highlight the significant impact of e-portfolios on writing, Nguyen and Nguyen (2022) also carried out a case study with 30 first-year English non-majored students in the Academy of Journalism and Communication, and the findings indicated that writing sessions with Google Docs enabled students to improve their writing skills and encouraged them to produce more written work.

In addition to the benefits for writing skills, applying e-portfolios brings other positive effects in writing classes. First, learners could experience greater motivation for learning and greater satisfaction with their e-portfolio (Masaeli and Chalak, 2016). Second, they were able to

develop their critical thinking, autonomy, and computer skills as well as much more engaged in revision and feedback during the online writing classes (Heath & Malecka, 2016). Finally, they would develop writing proficiency and promote their self-regulated learning in writing (Karami et al., 2019).

Moreover, perceptions on applying e-portfolios were investigated. Azarfam et al. (2016) conducted semi-structured interviews with four Iranian EFL students to explore their attitudes towards the use of e-portfolios on Claroline, a Learning Management System, in an online writing course at a Malaysian public university. The participants had positive views on the facilitation of writing e-portfolios in enhancing writing performance. Similarly, the case study by Nguyen and Nguyen (2022) found that the students reported a positive attitude after the online writing course integrated with e-portfolios. Despite thinking positively about this portfolio technique, learners reported problems such as Internet connectivity (Karami et al., 2019) and formatting issues (Nguyen & Nguyen, 2022).

As aforementioned, despite the technical issues associated with using e-portfolios in online learning systems or social networking sites, this application was more advantageous for teaching and learning writing.

Google Docs

Introduction to Google Docs

Produced by Google, Google Docs is an online word processor and a web-based tool for creating spreadsheets, presentations, forms, and storage (Alsubaie & Ashuraidah, 2017). Google Docs has a number of advantages and disadvantages. Table 1 presents the advantageous and disadvantageous features of Google Docs, adapted from Reyna (2013).

Table 1

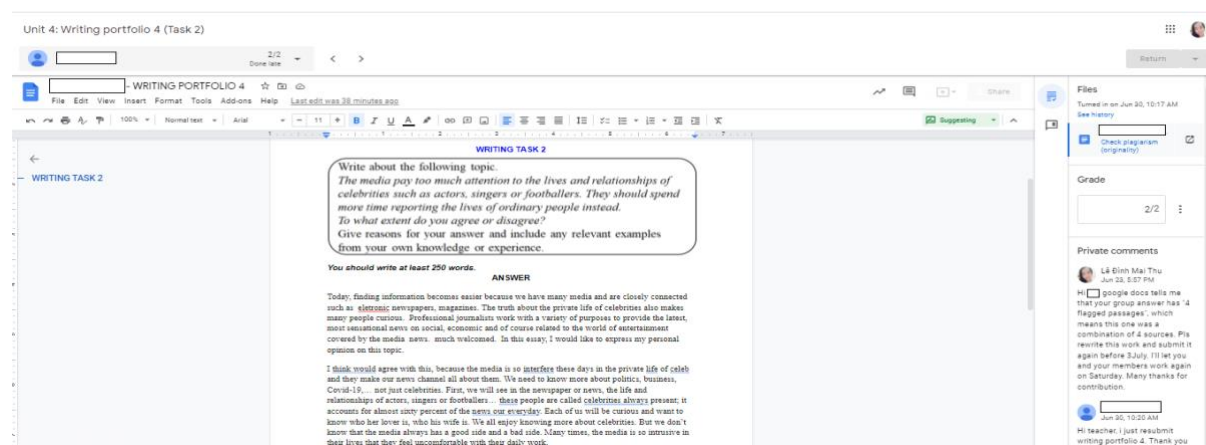
The advantages and disadvantages of Google Docs (adapted from Reyna, 2013)

Advantages	Disadvantages
<ul style="list-style-type: none"> ● being a platform of students' real-time collaboration ● being compatible with different computing system ● easily uploading and sharing files ● allowing students to chat while editing ● fostering online peer collaboration and editing ● doing automatic save ● accessing any devices connected with Internet ● working without any software and Gmail accounts ● supporting teachers' monitoring students' work progress and their contribution to revision ● easily exporting documents in different formats such as PDF, MS Word, and so on ● being used with EndNote and RefWorks ● allowing students to create and share works in the classroom ● engaging students in shared note-taking 	<ul style="list-style-type: none"> ● having basic document formatting ● containing simple functions of spreadsheets ● having menus and tools which are inconsistent from one application to another ● providing only <i>view</i> mode, and requiring users' purchase for editing documents in iPhones or iPads

With its useful features, Google Docs is used as an educational tool that enables students to write, edit, comment, store, and receive immediate feedback on their Internet-connected devices in and out of class (Alsubaie & Ashuraidah, 2017). Figure 1 displays a Google Docs-based written assignment submitted in one of my teaching sessions. As shown in Figure 1, Google Docs is similar to Microsoft Word, but It is more efficient for online sharing and collaboration (Boos, 2019). At the top right of the following image, there is a record of the submission date and time, a history of revisions to show attempts at revision, and a plagiarism check function to identify copying and the sources that were copied. Below these functions, there is a box of grades and a section for private comments.

Figure 1

The screen capture of a Google Docs-based written assignment



The application of using Google Docs in writing instruction

Google Docs is an application for assigning online writing tasks, and students can complete their work online (Ngui et al., 2019). Furthermore, according to Fayed (2020), their pieces of writing submitted via Google Docs can be stored online, and their teachers can monitor their writing processes through these electronic writing products archived in Google Drive. Therefore, Alharbi (2019) considered Google Docs as a facilitator of instructional practices in writing classes, especially in the feedback, editing, and revision stages of the writing process.

Several researchers have been attracted to the integration of Google Docs into English writing instruction. Seyyedrezaie et al. (2016) applied Google Docs-based writing instruction to improve the writing performance of EFL learners and to determine the causes of their success and failure in writing on Google Docs. In the context of collaborative learning, Liu and Lan (2016) considered Google Docs an online learning environment in which students could work collaboratively or individually to revise texts, and the study revealed that students developed positive attitudes, greater motivation, and greater engagement when learning in Google Docs. Likewise, Alsubaie and Ashuraidah (2017) used Google Docs as an online learning tool for individual and collaborative writing activities and found that students could develop their writing abilities and positively perceive its use in their writing instruction. Similar to previous studies, the research of Pham (2024) presented the importance of Google Docs to English-major students in revising their ideas for well-structured written parts in an essay, improving in-class collaboration, and developing their critical thinking skills (Pham, 2024). In the context of peer assessment, Jeong (2016) employed Google Docs as an online platform for collaborative writing and peer editing and found that integrating It could motivate students to enhance their academic writing skills, foster positive classroom interaction, and facilitate

collaborative and autonomous learning. In the same vein, Ebadi and Rahimi (2017) used Google Docs as “an online editing tool” to implement peer-editing more effectively and efficiently, so that EFL learners could have improvements in their academic writing skills (p. 809). On the other hand, from a sociocultural perspective, Kitjaroonchai and Suppasetsee (2021) instructed students to use Google Docs, with students engaging in “cross-cultural collaboration” to perform their group writing and develop their writing performance (p. 104). Considering the aesthetic of writing answers, Pham (2024) also highlighted the usefulness of Google Docs in helping teachers avoid untidy or messy writing by providing different eraser, correction, or deletion functions. Although Google Docs is a useful online writing tool for collaboration and editing in writing instruction, using it may be hindered by Internet access issues (Jeong, 2016; Seyyedrezaie et al., 2016; Alsubaie & Ashuraiah, 2017), limited technology skills, slow Internet connection, and formatting issues (Alharbi, 2019). Therefore, it is necessary to improve the use of Google Docs and Internet speed (Burtamani et al., 2020).

As previously stated, numerous studies have examined the use of Google Docs to develop students’ writing skills. However, there has been limited research on teachers’ perspectives on using this platform for writing instruction. Therefore, the current study investigated university teachers’ perceptions of the use of Google Docs for students’ writing e-portfolios to improve their IELTS writing performance. In this study, Google Docs was used as a writing e-portfolio tool through which writing assignments could be submitted, shared, completed, edited, collected, and stored online. Those digitally written responses can be referred to as Google Docs-based writing e-portfolios, shortly called Google Docs-based portfolios.

Research Questions

To address the aim and objectives, the study should answer the following research question:

How do lecturers perceive using Google Docs for writing e-portfolios by non-English major students to improve their IELTS academic writing performance?

Methods

Pedagogical Setting & Participants

The Creative Language Center is situated at Ton Duc Thang University in District 7, Ho Chi Minh City. The center is responsible for offering English programs, including Cambridge KET, PET, TOEIC, and IELTS, to non-English majors at the university, from beginner to upper-intermediate levels. Table 2 shows the English-level courses offered by the two main English programs at the center. As shown in Table 2, the standard program offers six courses from Foundation 1 to English 3, whereas the high-quality program offers nine courses from Foundation 1 to English 6. KET and PET are required for learners from Foundation 1 to English 1 in both programs; however, at higher levels, students in the standard program can register for PET, TOEIC, or IELTS, while those in the high-quality program must attend IELTS classes. Undergraduate freshmen must take the placement test to be assigned to an appropriate course, and not all students are permitted to enroll in the next course if they fail the previous one. Students in the standard program must earn an English proficiency certificate at CEFR B1, while those in the high-quality program must take the certificate at CEFR B2 for graduation.

Table 2*The English programs at the Creative Language Center*

CEFR levels	English level courses	The standard program	The high-quality program
A1 (Beginner)	Foundation 1, 2	KET	
A2 (Elementary)	Foundation 3, English 1	PET	
B1 (Intermediate)	English 2	PET/ TOEIC/ IELTS	IELTS
	English 3		
B2 (Upper-intermediate)	English 4	X	
	English 5	X	
	English 6	X	

Note. X means no classes.

Participants

The study used purposive sampling, selecting participants based on their experience with Google Docs for IELTS writing portfolios. There were four Vietnamese visiting lecturers at the Creative Language Center of Ton Duc Thang University. They comprised three interviewees and one researcher. Three participants were females in their early thirties, experienced IELTS teachers, and candidates for the Master's course in Education at Edith Cowan University in Perth, Australia. The other one was a male in his mid-twenties who had taught IELTS for over a year and had earned a Bachelor's degree in English teaching. All participants have experience teaching IELTS online and face-to-face to non-English-major students at the university and using Google Docs for their writing e-portfolios.

Design of the Study

The qualitative method was chosen because it could address the research focus on exploring lecturers' perceptions of using Google Docs for writing e-portfolios by non-English majors to improve their IELTS writing performance. Qualitatively, the participants' viewpoints and feelings about the issue could be explored and analyzed, and their textual analysis could yield significant thematic findings (Creswell, 2012).

The study was designed using grounded theory, a common approach in qualitative research and a method for systematically analyzing data to generate a theory that explains an issue (Tracy, 2020). As a characteristic of grounded theory, data collection and analysis can be conducted prior to completing the literature review, because researchers do not need to approach the data with theories or concepts that predate their work (Tracy, 2020). Thus, using grounded theory could be time-saving for the current study, which is constrained by a certain time limit, and the researchers could formulate themes and concepts based on my interpretation of the data.

Data collection & analysis

Methods of data collection and analysis

Regarding the data collection method, the study collected data through semi-structured interviews and reflections. Specifically, the researchers interviewed three colleagues as informants in the study, and one of the researchers employed reflective practice by responding to interview questions. Thus, the data were collected from two sources, including interviews and reflections.

The interviews were held via Zoom, an online meeting application, to reduce travel time for

all participants. The interviews were selected as data sources because they enabled the researchers to explore respondents' viewpoints and feelings and to obtain additional information through follow-up conversations (Bell & Waters, 2014). Additionally, from the interviewer's perspective, the researchers could assess the quality of the answers, note how well the questions were understood, and encourage their colleagues to give full answers (Walliman, 2011). Semi-structured interviewing enabled participants to remain flexible and comfortable throughout the conversations; furthermore, it allowed researchers to elicit more information through probes and to collect open-ended data (Dejonckheere & Vaughn, 2019). The participants responded to 12 open-ended interview questions during data collection. Regarding the quality of the questions, they were revised and provided with feedback by two colleagues who hold Master's degrees in English teaching. Below is the list of interview questions after revision:

1. How many years have you been teaching IELTS?
2. What difficulties do your students have with learning IELTS writing?
3. In what ways do you use Google Docs to improve students' IELTS writing performance?
4. What writing activities do you often assign via Google Docs?
5. In your opinion, what are the benefits of using Google Docs for students' writing e-portfolios?
6. In your opinion, what are the problems in using Google Docs for students' writing e-portfolios?
7. Do you prefer Google Docs-based portfolios or paper-based portfolios in your IELTS writing classes? And why?
8. Do you think using Google Docs-based portfolios affects the way you teach and assess IELTS writing? If yes, please indicate.
9. How did your students respond to using Google Docs for their writing e-portfolios?
10. How did your students improve when learning with Google Docs for their writing e-portfolios?
11. Would you recommend using Google Docs for students' writing e-portfolios? Why or why not?
12. Would you continue using Google Docs for students' writing e-portfolios for the next courses?

In addition to the interviews, one of the researchers recorded her own responses to the interview questions as a reflection for data collection and analysis. Reflection is defined as "a process of meaning-making from experience over time" (Palacios et al., 2021, p. 600). It means that reflection offers individuals an opportunity to evaluate their knowledge and consider ways of improvement through their experiences. Therefore, reflective practice plays a vital role in the development of the teaching profession (Moreno et al., 2021). When applying reflective practice, one of the researchers was motivated to critically reflect on the use of Google Docs for writing e-portfolios in her individual teaching context. Furthermore, it provided an opportunity to share and discuss experiences in teaching writing to develop professional practices.

For data analysis, coding was performed manually on the interview transcripts and on one of

the researchers' individual responses. Codes are words, phrases, or sentences used to label the meaning of information described and inferred; in addition, coding enables researchers to group key issues in the data and draw step-by-step conclusions (Bell & Waters, 2014). After interpreting the data for coding, the study selected and categorized the codes into themes and concepts to explore the perceptions of the lecturers regarding the role of Docs for writing e-portfolios to develop their students' writing performance (see Appendix for examples of the coded data; the themes and concepts were visually presented in a conceptual model). My colleagues were addressed as Teacher 1 (T1), Teacher 2 (T2), and Teacher 3 (T3) to protect their personal information and avoid ethical misconduct.

Procedure

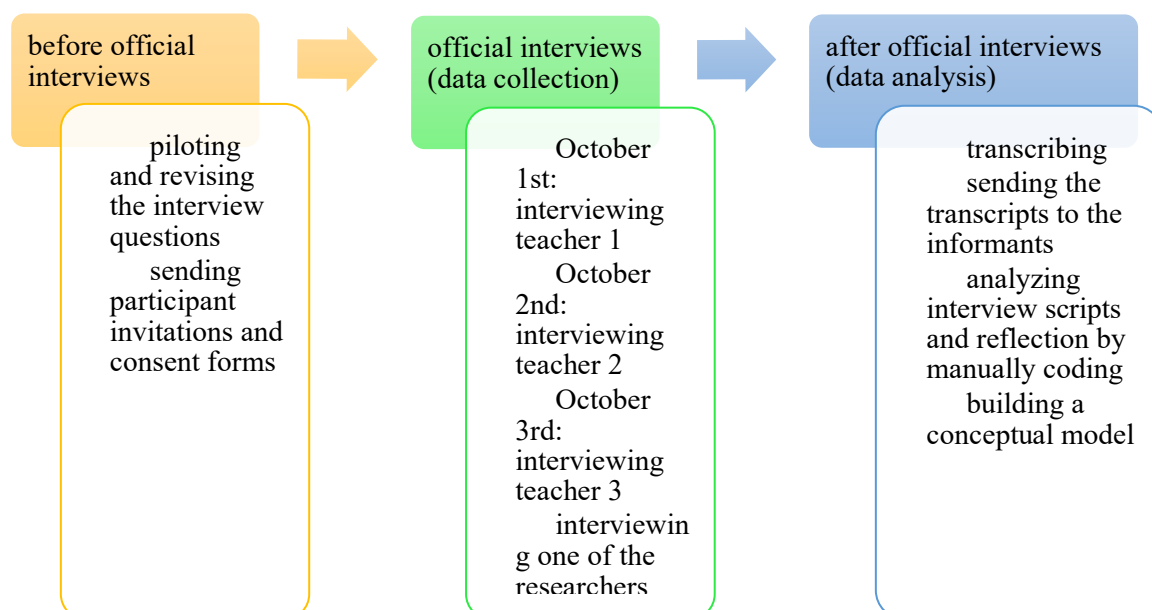
To begin with, the researchers piloted the interview questions with two colleagues via Zalo, a Vietnamese social networking site, to assess their clarity and quality. After the pilot and revisions to the interview questions, the researchers decided to conduct official interviews to collect data and sent participant invitations to teachers via Zalo. When they agreed to participate in the study, the researchers sent them consent forms to sign, confirming their willingness, and discussed a convenient time. Sending the forms and arranging a time were done via Zalo.

Official interviews for data collection were conducted over three days, from the first to the third of October. All interview sessions were conducted in English because the interviewers were proficient in the language, and each session lasted nearly thirty minutes. The interviews were recorded and held via Zoom. Then, one of the researchers answered the interview questions in her own words.

After the interviews, the researchers reviewed the video recordings, transcribed the conversations, and then sent the transcripts to the participants separately for editing and feedback on the content. They had no comments on the transcripts, so the researchers could analyze the data by coding the quotes and one researcher's individual responses. Then, the codes were grouped into themes and concepts, which were visualized in a conceptual model. Figure 2 summarizes the key steps of the procedure.

Figure 2

The key steps of the procedure



The statement of the ethical considerations

The data was collected and analyzed through interviews and reflection. The interviewees voluntarily participated in the current study and willingly answered the interview questions. They were informed about the study's topic and purposes and invited to participate via Zalo. After their approval, they were asked to sign the consent forms and arrange a convenient time. Because of the geographical distance and travel time, all individual interviews were conducted online via Zoom. Participants were asked for their permission via consent forms, and, before data analysis, the transcripts were sent to them for comment. Their personal information was coded as Teacher 1 (T1), Teacher 2 (T2), and Teacher 3 (T3) for anonymity and confidentiality. All responses to the interview questions were confidential and used only for the purpose of the study.

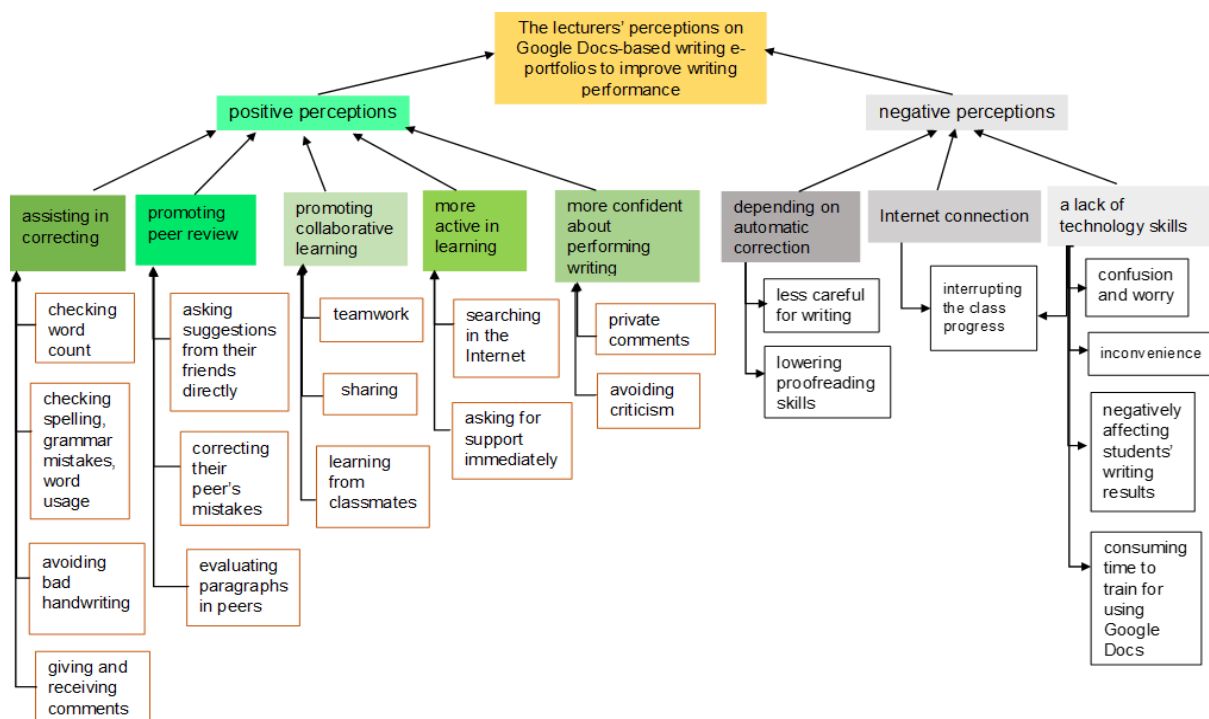
Results/Findings

The conceptual model of the study results

After analyzing the qualitative data, the study found both positive and negative perceptions of the lecturers, addressing the research question: *How do lecturers perceive using Google Docs for writing e-portfolios by non-English major students to improve their IELTS academic writing performance?* Figure 3 illustrates the conceptual model of the perceptions of the lecturers about using Google Docs for writing e-portfolios to improve IELTS writing performance for their students at the Creative Language Center of Ton Duc Thang University.

Figure 3

The conceptual model of the lecturers' perceptions on Google Docs-based writing e-portfolios to improve writing performance



The positive perceptions

In positive terms, Google Docs may assist in correcting, promoting peer review and collaborative learning, and increasing students' engagement and confidence in writing when used for writing e-portfolios by non-English majors to improve their writing performance in IELTS classes.

Assisting in correcting

The participants believed that Google Docs could assist teachers and students in correcting written work. Firstly, teachers could check the word count, which is a criterion for task achievement in the IELTS writing assessment (Ebadi & Rahimi, 2017); for example, *"Google Docs can help me to count the words"* (T1-Q5). Secondly, they could check word usage as well as spelling and grammar mistakes, as proof.

"The spelling and the grammatical issues can be found out clearly when they use Google Docs" (T1-Q3), and

"Sometimes, the students check the dictionary, and they don't know whether they use the correct word forms or not. I can use one function, like giving them the new definition of that word on Google Docs" (T1-Q3).

Thirdly, they could avoid bad handwritten works which negatively affected the quality of writing, like Teacher 2 said

"Some students have very bad handwriting, you cannot read their handwriting, you do not know what they're writing" (T2-Q8).

If their teachers or classmates had not understood their writing, they would not have given any appropriate feedback. Thus, typing answers in Google Docs could make their work easier to read. To illustrate that point,

"Thanks to Google Docs, their writing is still the same, I mean the handwriting, because they're in the same form, it is clear to see, well, it is clearer...demonstrated" (T3-Q11).

Lastly, Google Docs might help them give and receive comments. The teachers could elaborate on their comments:

"If I write it down, my corrections and suggestions on Google Docs, I can write it down in full sentences" (T1-Q9) or add comments flexibly: *"It's easy to add comments right at the spot of mistakes"* (T2-Q6).

In addition, comments can be sent and received immediately, enabling students to revise their work in real time. For example,

"When I correct their writing online, it can give the writing back to my or our students immediately; they can receive it immediately, they can revise it, they can correct it immediately" (T2-Q7).

Promoting peer review

The participants also believed that the application might promote peer review. The students could ask for suggestions from their friends directly before submission, for example,

"Before they submit the papers to me, they can ask for suggestions from their friends directly. They just click on the task, and they send it directly to their friends' email, and they get the suggestions or corrections from their friends" (T1-Q9).

With Google Docs, they could correct their peer's mistakes as a way of improving peer assessment

"The other students can correct their friends, their peers' mistakes, so I think that's the right way to improve the peer assessment, peer review" (T2-Q4).

Additionally, they could evaluate their paragraphs with peers on Google Docs, *"one of my favorites should be peer evaluation in paragraphs"* (T3-Q4).

Promoting collaborative learning

The participants perceived that the implementation might promote collaborative learning. To foster collaboration in learning, the teachers could assign teamwork on Google Docs

"I also use Google Docs to promote teamwork" (T2-Q4), so the students could learn from their classmates, *"they can learn from their friend's mistakes directly"* (T3-Q10).

By sharing their work, they could learn together:

"The student can learn from the other students when they share, right?" (T1-Q11).

In one of the researchers' classes, when she shared a Google Docs file with all class members, they could type their individual ideas directly on it. Therefore, all of them could see what was being typed in Google Docs.

More active in learning

Only Teacher 1 responded that students might become more engaged in learning to write with Google Docs: *"they can be more active in what they learn"* (T1-Q10). She explained that the students could search the Internet or ask for immediate support during online learning; for instance,

"They have the topic, and they can check for the vocabulary, or they can check to get the content directly from the Internet, or they can ask me or their friends" (T1-Q10).

This was supported by one of the researchers, who explained that students could use the Internet during online learning and collaborate with friends on task completion via Google Docs.

More confident about performing writing

Teacher 1 and one of the researchers hypothesized that the application might enhance their confidence in task performance because they could receive private comments and avoid criticism. For instance,

"They can be more confident, because nobody can see their tasks except for themselves, and the teacher, they can be more convenient, because they don't have to face more criticism" (T1-Q10).

The negative perceptions

Despite the above benefits, Google Docs-based writing e-portfolios might be problematic. The problems with this instruction might include students' dependence on automatic correction, an Internet connection, and a lack of technological skills.

Depending on automatic correction

The participants reported students' reliance on automatic correction and its negative effects. Teacher 1 thought that depending on the function could lower proofreading skills of the students, *"they lack skills to proofread or can't find out the mistakes by themselves"* (T1-Q6),

while Teacher 2 and 3 believed that they could be less careful with their writing. To illustrate that point,

“I don’t want them to rely too much on that function, they have to realize themselves, they have to be very careful when they write” (T2-Q12), and

“During their writing lessons, it’s not really good at all, because students may lack carefulness during their writing” (T3-Q6).

Internet connection

In addition to the first issue, Teachers 2 and 3 agreed that the internet connection might be another drawback when using Google Docs for students' e-portfolios in their writing classes. They also stated that an Internet connection would interrupt class progress. For example,

If there are a lot of students participating at the same time, it can affect the internet connection, so sometimes you can’t write the comment easily. You can write something very easily. You have to rely on the internet. I think there’s only one disadvantage. And I can add more if your document freezes. (T2-Q6)

Because it’s on the internet, some may encounter the problem of the internet connection. Therefore, they cannot be present during online classes or absorb all the knowledge I transfer to them. (T3-Q6)

As in the examples above, low connectivity can disrupt writing activities in Google Docs and students' learning. I often experienced unsatisfactory Internet connections during online teaching with Google Docs, so I was completely on their side. Overall, the present study is consistent with previous studies indicating that Internet connectivity may be an issue in writing classes integrated with Google Docs (Jeong, 2016; Seyyedrezaie et al., 2016; Alsubaie & Ashuraidah, 2017; Alharbi, 2019). The study also supported previous research on the use of e-portfolios (Poole et al., 2018; Karami et al., 2019). In addition, technical problems, including Internet connectivity, may adversely affect the quality of group essays written online, such as in Google Docs, by disrupting coordination and reducing students' motivation to complete collaborative writing tasks (Nykopp et al., 2019).

A lack of technology skills

The last obstacle may be insufficient technological skills. Teacher 2 and 3 did not mention this hindrance, except for Teacher 1. As explained by Teacher 1, the teachers focused on teaching methods and, therefore, were unable to address complex technical issues. In addition, the freshmen had not used Google Docs for writing in high school, so they could not handle the problems. Therefore, the lecturer suggested training students, particularly freshmen, to use Google Docs effectively before integrating the tool into writing instruction. However, it would take time to train them to use Google Docs effectively for their writing e-portfolios. Below is her response:

If you teach first-year students, they just go from high school to university, and they don’t know anything about using Google Docs in writing, so it will take time for you before you teach them about writing skills; you have to teach them how to use Google Docs correctly. (T1-Q6)

Lack of technological knowledge may lead to confusion, worry, and inconvenience, and may negatively affect students' writing outcomes. In addition, it might disrupt class progress if students stopped their work to wait for technical support. These troubles were reported by Teacher 1 as follows.

When I used Google Docs to take the writing examination, the student encountered technical difficulties and deleted all of his work. This was very inconvenient for me when I had to resubmit the exercise and homework. And at that time it was so confusing and stressful, and that also affected the results of that paper. (T1-Q6)

The technical problems in class, if I cannot help them immediately and directly, right? They have to slow down on the task and wait for my support. Despite serious technical problems, teachers who focus solely on knowledge cannot address the underlying technical problems. (T1-Q8)

Teacher 2, Teacher 3, and one of the researchers did not perceive a lack of adequate technology skills as a problem when using Google Docs-based portfolios, as they believed that a strong Internet connection was essential for online activities.

Discussion

The positive perceptions

Assisting in correcting

Generally, Google Docs can be a useful tool for writing corrections or edits. This was consistent with Alharbi's (2019) research, which identified facilitative features of using Google Docs in teaching and writing practices. However, according to Saeed and Qunayeer (2020), Google Docs provides written commentary, but students sometimes struggle to understand their teachers' written feedback and require additional spoken explanations via a voice call application. Therefore, Google Docs should be equipped with chat features that enable students to send audio and text messages to facilitate interactions during teacher feedback (Saeed & Qunayeer, 2020). Furthermore, the current study's findings agreed with Pham (2024) about the benefits of Google Docs for marking and editing, specifically that teachers can use colours to identify different mistakes in writing answers, while students can systematically revise their work based on comments and colour-coding, which is a feature not easily replicated in paper-based writing.

Promoting peer review

According to Vo (2022), peer correction's greatest advantage was its ability to make students take their writing more seriously, knowing a real audience was reading it; additionally, the peers were effective at highlighting personal strengths and weaknesses they were previously unaware of. Due to these benefits, peer correction should be promoted in writing classrooms, and Google Docs is an incredibly useful tool for facilitating this practice. By using Google Docs, an individual could share his or her written responses with others, and others could then directly edit or comment on them. The current study supported previous findings in the literature about the positive effects of using Google Docs with peer editing activities on students' academic writing performance (Ebadi & Rahimi, 2017; Jeong, 2016;). The study also confirmed previous research on the benefits of e-portfolios (Lam, 2020). Farahani et al. (2019) stated that students could develop their IELTS writing skills through online peer review, but Birnholtz et al. (2013) found that the number of peer edits negatively affected an individual's interest in a group task (as cited in Yim & Warschauer, 2017). Therefore, teachers should guide and monitor the peer assessment process to ensure a successful peer-review session in Google Docs.

Promoting collaborative learning and active learning

Collaborative and active learning might be promoted through this online writing platform, where students could work together to complete writing tasks. The current study confirmed previous findings on using Google Docs in collaborative learning to improve writing (Abrams, 2016; Alsubaie & Ashuraidah, 2017; Faulkner, 2019; Jeong, 2016; Seyyedrezaie et al., 2016; Pham, 2024).

More confident about performing writing

This finding was similar to that of Woodrich and Fan (2017), who found that students were more comfortable and confident writing in Google Docs than in a face-to-face setting. Although Woodrich and Fan (2017) examined secondary students, their research could shed light on the positive impacts of using Google Docs on students' writing performance.

The negative perceptions

Depending on automatic correction

There might be concern that if the student wrote on paper or took computer-based IELTS writing exams, they would not be aware of their mistakes because automatic correction is unavailable. Thus, with auto-correction, students could gain an advantage in editing products efficiently and confidently, but could be disadvantaged by their unawareness of errors. The current study is consistent with the research of Boukhechba and Bouhanian (2020). The researchers found that students became dependent on the autocorrect feature of a technological tool because they knew that accurate spelling would be provided by clicking on suggestions to correct, and the application would edit their spelling mistakes immediately. Although their finding focused on the drawbacks of autocorrect for spelling ability, it provides evidence of issues with using online tools with an autocorrect function, such as Google Docs.

Internet connection

Low connectivity could disrupt writing activities in Google Docs and students' learning. The present study is consistent with previous studies indicating that Internet connectivity may be an issue in writing classes integrated with Google Docs (Alharbi, 2019; Alsubaie & Ashuraidah, 2017; Jeong, 2016; Seyyedrezaie et al., 2016). The study also supported previous research on the use of e-portfolios (Poole et al., 2018; Karami et al., 2019). In addition, technical problems, including Internet connectivity, may adversely affect the quality of group essays written online, such as in Google Docs, by disrupting coordination and reducing students' motivation to complete collaborative writing tasks (Nykopp et al., 2019).

A lack of technology skills

The current study confirmed previous findings that a lack of technology skills may hinder teachers and students in using Google Docs, underscoring the need for initial training in this application in writing courses (Alharbi, 2019; Burtamani et al., 2020). This study's finding was also reported in research on e-portfolios (Poole et al., 2018).

Conclusion

In conclusion, the qualitative study used semi-structured interviews and reflective practice to investigate lecturers' perceptions of using Google Docs for writing e-portfolios by non-English majors to improve their writing performance. The four participants, including one of the researchers, were IELTS teachers at the Creative Language Center of Ton Duc Thang University and responded to 12 open-ended questions for data collection. The study implemented a coding process for data analysis to address the research question. The study indicated that the lecturers may have both positive and negative perceptions of integrating Google Docs for writing e-portfolios to enhance their students' IELTS writing performance. The application might assist with writing correction, promote peer review and collaborative learning, and increase students' engagement and confidence in writing. However, there may be problems, including students' dependence on automated correction, Internet connectivity issues, and limited technological skills. These drawbacks may adversely affect the class's progress and their feelings about learning writing skills in Google Docs.

There could be three limitations in the study. First, the sample comprised four lecturers teaching non-English majors, which may limit generalizability given the small sample size. Hence, future studies on the same topic can increase the number of informants and consider participants who teach English-major undergraduates. Secondly, the study examined only teachers' views; therefore, further research could explore students' perspectives on the use of Google Docs for their writing e-portfolios in online IELTS writing classes. Finally, the study conducted qualitative interviews with reflection for data collection and analysis. Therefore, further studies can employ another qualitative data collection method, such as focus groups.

The present study has some implications based on its findings. Firstly, the findings indicated that a lack of technological skills may hinder teachers and students in using Google Docs in their writing classes. It is recommended that training in using this application be conducted at the beginning of writing courses to mitigate technical issues caused by insufficient technological knowledge. Almarwani (2017) emphasized that educational organizations should invest in developing the necessary knowledge and skills for using online learning applications, rather than investing solely in advancing technology. Secondly, lesson recordings should be integrated into instruction to support learners with unstable Internet connections and to help them review missed material. Lastly, the findings revealed lecturers' concern about lapses in writing due to students' reliance on automatic correction. To alleviate the problem, teachers should encourage students to reflect on the correction of Google Docs. For example, teachers can ask students to record their mistakes and the corrected versions in Google Docs, and motivate them to share the words or structures they have learned using Google Docs.

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Biodata

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Appendix 1

A table of examples of the data for codes

The quotes	Source	Codes	Themes
<p>the spelling and the grammatical issues can be found out clearly when they use the Google Docs</p> <p>sometimes, the students they check the dictionary and they don't know whether they use the correct word forms or not, I can use one function like giving them the new definition of that word on Google Docs</p>	T1-Q3	checking spelling, grammar mistakes, word usage (assisting in correcting)	positive perceptions
Google Docs can help me to count the words	T1-Q5	checking word count (assisting in correcting)	positive perceptions
<p>when they have so many support from the program they can't realize their own mistakes, they just base on the suggestions, and they just click on the incorrect of for it, and the program can help them to correct automatically, so they lack skills to proofread or can't find out the mistakes by themselves</p> <p>I think that you need to use to instruct the students how to use or add the answer on Google Docs</p> <p>if you teach for the first-year students, they just go from the high school to university and they don't know right anything about using Google Docs in writing so it will take time for you before you teach them about writing skills, you have to teach them about how to use Google Docs in the correct way</p> <p>when I used Google Docs to take the writing examination, and that student could not handle the technical problems, he deleted all the things on Google Docs, and it's very inconvenient for me when I had to give exercise and homework again. And at that time it was so confusing and so worried, and that also affected giving</p>	T1-Q6	<p>depending on automatic correction</p> <p>lowering proofreading skills</p> <p>training students to use Google Docs</p> <p>a lack of technology skills</p> <p>consuming teacher's time to train students to use Google Docs</p> <p>inconvenience</p> <p>confusion and worry</p> <p>negatively affecting students' writing results</p>	negative perceptions

the results of that paper.			
the technical problems in class, if I cannot help them immediately and directly, right? they have to slow down on the task and wait for my support, alright with the serious technical problems, the teachers who just focus on teaching knowledge cannot solve right too hard technical problems	T1-Q8	interrupting the class progress (a lack of technology skills)	negative perceptions
Before they submit the papers to me, they can ask the suggestions from their friends. They just click on the task and they send directly to their friends' email and they get the suggestions or corrections from their friends. I think that peer review is good, right? if I write it down, my correction and suggestion on Google Docs, I can write it down in full sentences	T1-Q9	promoting peer review asking suggestions from their friends directly giving and receiving comments (assisting in correcting)	positive perceptions
they can be more active in what they learn because right they have the topic and they can check for the vocabulary or they can check to get the content directly from the Internet or they can ask me or their friends they can be more confident, because nobody can see their tasks except for themselves, and the teacher, so they can be more convenient, because they don't have more like criticism	T1-Q10	more active in learning more confident about performing writing private comments avoiding criticism	positive perceptions
the student can learn from the other students when they share right? it's about the student, they can learn without any feeling and shame, right? because I know that their mind is right? it's a big obstacle in their learning, sometimes when you have to correct the writing right directly in the class,	T1-Q11	sharing (promoting collaborative learning) more confident about performing writing	positive perceptions positive perceptions

some students will feel that oh they're worse than the other students and they don't want to continue learning anymore, so with the Google Docs, I have to say the confidential comments to the student and that student just can see the comments.			
I also use google docs to promote the teamwork, because not only me, the other students can correct their friends, their peer's mistakes, so I think that's a right way to improve the peer assessment, peer review, team work, also the good way, because they can directly correct the mistakes.	T2-Q4	teamwork (promoting collaborative learning) correcting their peer's mistakes (promoting peer review)	positive perceptions
It's easy to add comments right at the space of mistakes If there are a lot of students participating at the same time, it will affect the internet connection, so sometimes you can't write it easily, you can't write the comment, write something very easily. You have to rely on the internet. I think there's only one disadvantage. And I can add more if your document will freeze.	T2-Q6	adding flexibly (giving and receiving comments) Internet connection interrupting the class progress	positive perceptions negative perceptions
when I correct their writing online, it can give the writing back to my or our students immediately, they can receive it immediately, they can revise it, they can correct it immediately	T2-Q7	students' receiving and revising immediately (giving and receiving comments)	positive perceptions
some students have very bad handwriting, you cannot read their handwriting, you do not know what they're writing	T2-Q8	avoiding bad handwriting (assisting in correcting)	positive perceptions
I know that nowadays, they have the computer-based IELTS test, they can type; however, even if they type, they do not have the function auto correction, so I don't want them to rely too much on that function, they have to realize themselves, they have to be very careful when they write	T2-Q12	making students less careful for their writing	negative perceptions
One of my favorite should be peer	T3-Q4	evaluating	positive perceptions

evaluation in paragraphs		paragraphs in peers (promoting peer review)	
because it's on the Internet, some may encounter the problem of the Internet connection. So they cannot be during online classes, or they cannot take in all the knowledge that I transfer them	T3-Q6	Internet connection	negative perceptions
The bigger problem should be error identification of Google Docs, which means that when you type the sentence that is grammatically incorrect. It corrects itself, so It's really good in some way, but during their writing lessons, it's not really good at all, because students may lack their carefulness during their writing		depending on automatic correction	negative perceptions
they can learn from their friend's mistakes directly	T3-Q10	making students less careful for their writing	
		learning from their classmates (promoting collaborative learning)	positive perceptions
thanks to Google Docs, their writing is still the same, I mean the handwriting, because they're in the same form, it is clearly to see, well, it is clearer...demonstrated	T3-Q11	avoiding bad handwriting (assisting in correcting)	positive perceptions
I often let them do vocabulary and grammar exercises which are related to a writing topic first. Then, I ask them to individually share ideas to answer the writing topic on Google Docs. Because Google Docs allows me to share easily, I can share the link to access and they can type their ideas directly on my Google Docs file. After that, they can work in groups to complete paragraphs or essays on their own Google Docs file. Then, I share all group works for their classmates' editing and comments.	One of the researcher's answer - Q5	sharing (promoting collaborative learning)	positive learning
They can revise comments or feedback saved on Google Docs and follow their developmental progress in writing through each Google Docs file.	One of the researcher's answer- Q6	more active in learning	positive perceptions

<p>If their Internet connection is unstable, Google Docs is frozen and still does not save what has just been written.</p> <p>About the auto-correction function, they can depend on it. When Google Docs suggests a mistake, they just click on the suggestion and their mistake can be corrected automatically. If they write on papers or take computer-based IELTS writing exams, they may not know what their mistakes are because auto-correction is not available. Auto-correction may make them less careful.</p>	One of the researcher's answer-Q7	<p>Internet connection</p> <p>depending on automatic correction</p>	<p>negative perceptions</p> <p>negative perceptions</p>
It can engage students in giving feedback for their classmates when I share Google Docs writing.	One of the researcher's answer-Q8	promoting peer review	positive perceptions
<p>They could edit and correct their writing together</p> <p>If they do not know any words or do not understand the task, they could ask me or friends immediately, so this way could make them more active in learning.</p> <p>They could be more confident to write their answer because they could receive private comments if they only shared it with me or with some friend.</p>	One of the researcher's answer-Q10	<p>promoting peer review</p> <p>more active in learning</p> <p>more confident about performing writing</p>	<p>positive perceptions</p> <p>positive perceptions</p> <p>positive perceptions</p>
I also can give detailed comments or adjust flexibly on Google Docs.	One of the researcher's answer-Q11	giving and receiving comments (assisting in correcting)	positive perceptions