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THE EXPLORATION OF UNIVERSITY STUDENTS' PERCEPTIONS OF USING TECHNOLOGY IN ACADEMIC WRITING CLASSROOMS

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Abstract

This study explores university students' perceptions of the usefulness of technology, the frequency of using technology, a technology tool that the students like the most, and perceptions if the technology they like the most helps them meet the characteristics of good writing. To meet the research goals, sixty-seven undergraduate students of a private university in Indonesia were asked to respond to a close-ended online questionnaire that surveyed their perceptions of using technology in their academic writing classroom. The findings indicate that an online dictionary, Google search engine, and Google translate are the technology that the students frequently use and consider useful to enhance their writing. Further, an online grammar checker is found to be a technology tool that the students like the most, and they feel that the tool can help them meet the characteristics of good writing. Recommendations for teaching practices using the technology and directions for further research are discussed.

Keywords: language teaching, language learning, technology, writing

Introduction

English writing is an important skill for English as a Foreign Language (EFL) students as it has become an integral part of their academic work (Beigi & Ahmadi, 2011; Cloutier, 2016) and an assessment tool in most of the academic disciplines (Bailey, 2011; Jones, 2011). However, improving English writing is often considered a difficult task specifically for EFL students (Laksmi, 2006; Pujianto, Emilia, & Sudarsono, 2014) as they might only have a few hours per week to receive English exposure (Kim & Kim, 2005). A few years ago, Tri and Nguyen (2014) surveyed 149 English-major students in a university in Vietnam. In their survey, most of the students agreed and strongly agreed that technology helps improve their writing (51.7%) (see p. 41). The researchers also reported that most of the students (81.9%) frequently used technology for their writing practice (see p. 40). However, the researchers did not provide any further details on what technology the students used to improve their writing. Given that background, this research is interested in following up Tri and Nguyen's (2014) previous study by

exploring perceptions of Indonesian university students in utilizing technology in their EFL writing class and answering the following research questions:

1. How often do the students use technology to improve their writing?
2. How is the usefulness of technology that the students use to improve their writing?
3. Are the students' gender and their perceptions of the usefulness of using the technology independent of one another?
4. What is a technology tool that the students like the most?

4.1. Do the students feel that the technology they like the most helps them meet the characteristics of good writing?

In response to research question number three, the researcher hypothesizes that there is no association between the variables of gender and perceptions. In other words, the students' gender and their perceptions of technology are independent.

The answers to the research questions might be fruitful for EFL teachers or language instructors who wish to integrate technology into their writing classrooms. Practically speaking, they can learn types of technology that university students in this study use frequently and find useful in improving their EFL writing and meeting good writing characteristics. This paper will also discuss some strengths and weaknesses of technology when used in the writing classroom.

Literature Review

Definitions of Technology

In this study, the term technology could be defined as "computer-based technologies, such as desktops, laptops, tablets, smartphones, and software and also internet-based technologies including websites and social networking sites for English teaching and learning purposes" (cited in Tri & Nguyen, 2014, p. 34). Technology also provides access to information using telecommunications, such as cell phones, wireless, Internet, and other communication mediums (see Floris, 2014). Based on the notions above, this study regarded technology as various tools, such as electronic devices, Internet, websites, and software, which can be used to access information and facilitate communications to support language and learning in an EFL writing classroom. The technology tools discussed in this study were limited to an online dictionary, Google search engine, online websites, Google Docs, YouTube videos, Google Translate, and an online grammar checker.

Using Technology to Improve EFL Writing

The use of technology in English language writing is not a new phenomenon (Purnawarman, Susilawati, & Sundayana, 2016). Previous studies reported some benefits and potential drawbacks of using the technology. For instance, Cunningham (2000) researched perceptions of 37 Japanese female undergraduate students enrolled in EFL writing classes. Many of the students agreed and strongly agreed that the computer helps them to write their papers better (88%), pay attention to spelling (88%), and think of more ideas for their writing (66%). Besides, online dictionaries, which provide meanings and sounds of words, and a searchable thesaurus (Dudeney & Hockly, 2012), were reported to

be the most frequent technology tool used by the university students (see Tri & Nguyen, 2014). Similarly, in Jin and Deifell's (2013) research, around 220 foreign language students in universities across the United States used online dictionaries daily (27.7%) and weekly (39.7%) to support their writing (85.3%).

A search engine (e.g., Google) enables students to access rich information from various websites (Herington, 2002; Tekinarslan, 2008). However, students often searched for answers for their inquiries only from a single website, such as reading the first couple of sentences on the site without further checking the available information. "If the website looks good, appears to be professional, and has a lot of detail on it, many of the students will accept it as a good site for finding information (Walraven, Gruwl, & Boshuizen, 2009, p. 245). With these practices, the students might end up including unreliable information in their writing. In response, students might need to learn ways to evaluate sources. One of the possibilities is to use the Currency, Relevance, Authority, Accuracy, and Purpose (CRAAP) test with some questions to guide students when reading some information from a website (see Kurpiel, 2020, for more details about the test).

Krajka (2000) introduced web pages as a model of various writing genres, such as biography (see http://www.imdb.com/), advertisements (visit the electronic telegraph site at www.telegraph.co.uk), review of theatre plays (http://www.londontheatre.co.uk/), and newspaper report (http://www.onlinenewspapers.com/). Krajka (2000) posited that using the Internet could provide students with models of sentence structures, different word choices for their writing, and a sense of authenticity in their writing experiences. However, teachers also need to be aware that their students might cut and paste ideas from a website (Eret & Ok, 2014; Scanlon, 2003).

Google Docs (https://docs.google.com), an online word processing, might also support students' EFL writing activities. It enables students to write collaboratively at the same time wherever they are (Mansor, 2012). It also has comment features that allow students to give and receive feedback from one another and their teacher (Ishataiwa & Aburezeq, 2015). Google Docs can also detect (simple) grammatical errors (e.g., related to subject-verb agreement, punctuations, and determiners) that students make in the online document (REFO Indonesia, 2020). However, a slow internet connection might interrupt typing activities, and it might demotivate students to use the tool (Mansor, 2012).

Watkins and Wilkins (2011) mentioned the potential of using YouTube to learn English writing. For example, in their own time, students can choose to watch a YouTube clip in English (e.g., how to write a paragraph or essay) and spend more time to comprehend writing ideas conveyed in the clip. In line with this, an undergraduate student in Australia said that "Often when studying a new concept, I'll struggle to understand it fully simply using the resources provided by the lecturer. With YouTube, a whole host of videos will be supplied to me with different examples" (Henderson & Selwyn, & Aston, 2017, p. 1574). Nevertheless, in asking students to learn from a YouTube clip, Watkins and Wilkins (2011) reminded us about provocative language and risqué contents that might appear in the clip. This reminder is crucial as Tri and Nguyen (2014) reported that the EFL university students in their study (88%) frequently watched YouTube for non-learning purposes.

EFL students also find Google Translate (hereafter called GT) helpful for semantic understanding of new vocabulary items (Raza & Nor, 2018). In their case study on eight college students in Indonesia, Chandra and Yuyun (2018) found that GT (accessible at https://translate.google.com/) was mostly used for translating English words (e.g., from Indonesian to English) when the students wrote their EFL essay. GT was also reported to be a popular online dictionary as perceived by 250 language learners in colleges and universities across the United States (Jin & Deifell, 2013). Despite its popularity, GT failed to translate sentences with correct word choices, sentence structures (Groves & Mundt, 2015), and grammar (Chandra & Yuyun, 2018). Also, in translating whole sentences, GT is not sensitive to their contexts (Sheppard, 2011). Therefore, EFL teachers need to use GT in their class cautiously so that their students do not become addicted to the tool, which might hamper their language learning (Raza & Nor, 2018).

Some studies researched the use of online grammar checkers. Yang (2018) explored perspectives of one Korean and fifteen Chinese EFL undergraduate students toward feedback given by an online grammar checker (e.g., SpellCheckPlus; free accessible at https://spellcheckplus.com/en/) to their writing. The feedback from the grammar checker could spot weaknesses in the students' writing assignment related to "tense (f=10), verb-form (f=8), subject-verb agreement (f=7), word form (e.g., nouns, adjectives) (f=7), word choice (f=4), word order (f=3), and punctuations (e.g., comma, period) (f=2)" (Yang, 2018, p. 339). More specifically, some respondents said, "I think it's very useful because I can check my grammar mistakes; the grammar checker improves my verb form and tense" (Yang, 2018, p. 338). Although most of the students had positive opinions about using the grammar checker, some other students still believed that "the grammar checker cannot detect all errors in my essay; the detected error is not sometimes correct" (Yang 2018, p. 340). More recently, Park (2019) investigated the use of Grammarly (free accessible at https://app.grammarly.com/) to analyze grammatical errors on 40 writing samples of Korean EFL high school students. Park (2019) found out that Grammarly could detect (simple) errors related to subject-verb agreements (e.g., each accident have), verb choices (e.g., have a birth), noun agreements (e.g., a bad events), determiners (e.g., [a] valuable lesson), and prepositions (e.g., at Saturday). However, Park (2019) saw that the tool only discovered limited types of grammatical errors, failed to detect all types of errors in the students' essays, and suggested many flawed grammar corrections on the errors, which were consistent with what Cavaleri and Dianati (2016); Yang (2018) reported in their studies.

Characteristics of Good Writing

Writing students are hoped to produce a written work that meets some characteristics of good writing. For instance, it should have (a) well-developed ideas, (b) content, (c) various sentence structures, and (d) correct spellings and (e) punctuations (Learning Express Editors, 2008). Another characteristic is (f) the use of a consistent (without any unimportant shifts) point of view (Richards & Schmidt, 2010). In a more recent year, Donovan (2017) mentioned that good writing should (g) be clear and well-organized, show (h) precise, accurate word choices, and (i) well-crafted sentences, as well as (j) follow grammatical rules correctly. Similar to previous attributes (d, e, j), Nauman, Stirling, and Borthwick

(2011) stated that good writing should be clear, easy to understand, and free from errors related to mechanics and conventions. Although Crossley, Roscoe, and McNamara (2014) argued that successful writing has more than just a set of predefined features, the researcher assumes that these characteristics (a-j) can be suitable for reflecting on the writing products of the students in the context of the current study.

Method

The researcher recruited 67 second-year university students from four face-to-face parallel academic writing classes in an English Language Education Program at a private university in Indonesia. Forty-eight respondents (72%) are female, and 19 respondents (28%) are male. As stated in the syllabus, in brief, the course aims to equip students with knowledge and skills in writing an academic paper (e.g., starting what others are saying, quoting, paraphrasing, and summarizing, responding to other people's views). In the class, the students are required to write a three-paragraph essay based on the class theme selected by their instructor.

The researcher emailed the class lecturers to explain the research purposes and asked their assistance to distribute the online questionnaire's link to their students. The questionnaire was designed using *Google Form* application and became the main instrument for collecting research data in this study. The questionnaire consisted of 22 closed-ended items, which were developed from previous surveys on technology (e.g., see Henderson et al., 2017; Li & Ni, 2011; Tri & Nguyen, 2014) and the characteristics of good writing (Donovan, 2017; Learning Express Editors, 2008; Nauman et al., 2011; Richards & Schmidt, 2010).

The online questionnaire was divided into five sections (see Appendix). The first section asked the gender information of the students. The second section with a four-point Likert scale (e.g., never, rarely, frequently, very frequently) entailed the frequency of using technology to enhance students' writing. The third section, with another four-point Likert scale (e.g., not at all useful, slightly useful, very useful, and extremely useful), explored the usefulness of technology to enhance students' writing. The next section required the students to select one technology they like the most. The final part of the questionnaire asked the students to rate on a four-point Likert scale (e.g., strongly disagree, disagree, agree, and strongly agree) to know if the technology they like the most helps them meet the characteristics of good writing. Previous researchers (e.g., Al-Mahrooqi, Denman, Al-Siyabi, & Faisal, 2015) similarly used a similar four-point Likert-type response survey to achieve their research goals. As for the reliability of the students' responses or "the extent to which a measure yields consistent results" (Ary, Jacobs, Irvine, & Walker, 2019, p. 344), the researcher ran a Cronbach's alpha reliability analysis. The results showed that the students' responses, which were related to frequency, usefulness, and using technology to meet the characteristics of good writing, had Cronbach's alpha value ranging from 0.742 to 0.899; these numbers indicate high reliability of the survey results (Liu, Liu, & Hwang, 2011; Sweet & Martin, 2012).

The students' responses were then exported from *Google Form* spreadsheet, inputted into, and coded using *Microsoft Excel* (following Fuchs & Akbar, 2013). Descriptive statistics of frequencies and percentages were presented

to answer research questions number one, two, and four. The findings were then summarized into a figure and some tables that were adapted from quantitative data representations of the previous studies (e.g., Celik, 2013; Li & Ni, 2011). Next, the researcher ran a Chi-square test of independence (see Ary et al. 2019) to answer research question three **(**e.g., determining if the students' gender and the usefulness of using the technology were independent). *StatCrunch* software (https://www.statcrunch.com/) was used to complete the Chi-square test calculation (e.g., obtaining the Chi-square value and *p*-value of the survey data).

Findings and Discussion

The researcher organized this section according to the foci of this analysis: the frequency of using the technology, the usefulness of using the technology, the relation between the gender and the usefulness of using the technology, and the technology to meet the characteristics of good writing.

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The Frequency of Using the Technology

As Table 1 illustrated, over 70% of the students frequently or very frequently used online dictionary (85%) and Google search engine (73%) to enhance their writing. Other technology tools that the students often used were Google translate (68%) and online websites (64%).

Table 1. The frequency of using the technology

No	Technology	The students' response rate							
		Never		Rarely		Frequently		Very frequently	
		f	%	*f*	%	*f*	%	*f*	%
1	Online dictionary	0	0	10	15	41	61	16	24
2	Google search engine	3	4	15	22	38	57	11	16
3	Google translate	1	1	20	30	31	46	15	22
4	Online websites	3	4	21	31	31	46	12	18
5	Online grammar checker	5	7	24	36	25	37	13	19
6	Google docs	16	24	27	40	22	33	2	3
7	YouTube videos	11	16	34	51	13	19	9	13

Note. Cronbach alpha of the survey results = .742

Meanwhile, most students rarely or never used YouTube videos (67%) and Google docs (64%).

The Usefulness of Using the Technology

In this study, the perceptions concerned with how useful the technology tools were to enhance the students' writing. The questionnaire data indicated that the majority of the students perceived online dictionary (82%), online grammar checker (81%), and Google search engine (75%) as the most useful ones (see Table 2 for more details).

Table 2. The usefulness of using the technology

No	Technology	The students' response rate							
		Not at all useful		Slightly useful		Very useful		Extremely useful	
		f	%	*f*	%	*f*	%	*f*	%
1	Online dictionary	1	1	11	16	39	58	16	24
2	Online grammar checker	1	1	12	18	36	54	18	27
3	Google search engine	2	3	15	22	42	63	8	12
4	Google translate	2	3	20	30	30	45	15	22
5	Online websites	2	3	27	40	32	48	6	9
6	Google docs	8	12	38	57	15	22	6	9
7	YouTube videos	9	13	38	57	11	16	9	13

Note. Cronbach alpha of the survey results = .791

Conversely, most of the students regarded YouTube videos (69%) and Google docs (69%) as slightly useful or not at all useful technology for their writing improvement.

The Relation between Gender and the Usefulness of Using the Technology

In this study, the researcher also aimed to investigate if the students' gender and the usefulness of using the technology were independent. The questionnaire data of this part was calculated using the Chi-square test of independence. The critical value was 3.841 (with one degree of freedom and the significance level (α) of 0.05) (see Ary et al., 2019, p. 551). As observed in Table 2, some categories (e.g., *not at all useful*) only received a few responses, which can affect the Chi-square calculation. For this reason, the researcher decided to merge the data in the categories of *not at all useful* and *slightly useful* into a single category, *slightly useful.* For the same reason, the data in the *very useful* and *extremely useful* categories were merged into the category of *very useful.* The results of the calculation were summarized in Table 3 below.

Table 3. The chi-square test of independence on gender and perceptions

No	Technology	Chi-Square value	*p*-value
1	Online dictionary	3.153	0.368
2	Online grammar checker	0.961	0.810
3	Google search engine	1.306	0.727
4	Google translate	2.027	0.566
5	Online websites	2.254	0.521
6	Google docs	3.256	0.353
7	YouTube videos	0.687	0.876

Table 3 showed that the calculated Chi-square values of all the technology tools were smaller than the critical value (7.815); therefore, the study failed to reject the null hypothesis (Ary et al., 2019). Also, the p-values of all the technology were bigger than $\alpha = 0.05$. With this evidence, the present study may conclude that the students' gender and their perceptions of the usefulness of using the technology were independent, or there was no association between those two variables.

Technology to Meet the Characteristics of Good Writing

In the online questionnaire, the students were also asked to select one technology they liked the most. As evidenced in Figure 1, most of the students favored online grammar checkers (57%). A small percentage of students liked to use Google translate (15%), online dictionary (12%), and Google (search engine) (10%).

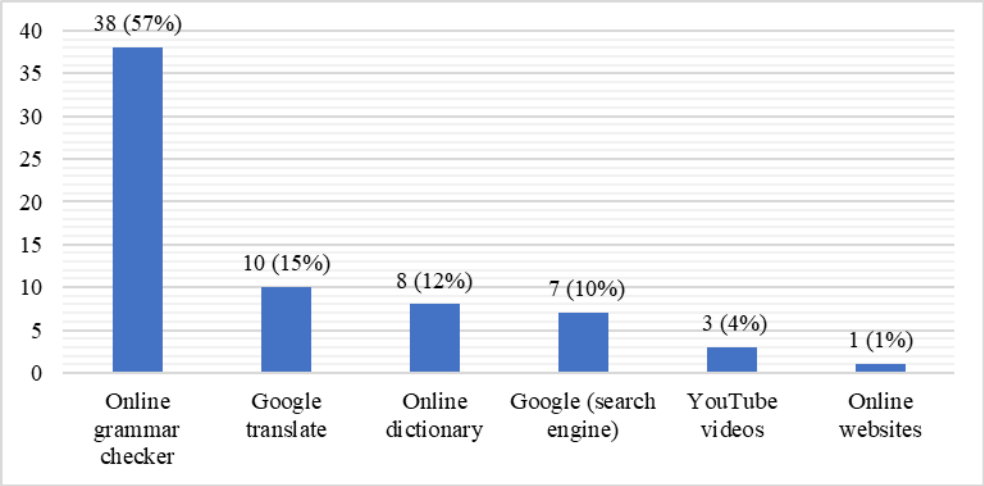


Figure 1. The technology that the students liked the most

On the contrary, YouTube videos and online websites were the technology that the students liked the least. The researcher found that no one liked Google Docs.

Among the five other technology, online grammar checkers received the highest number of the students' preference (57%) to meet good writing characteristics. The researcher displayed the students' perceptions of this type of technology (see Table 4 below).

Table 4. Online grammar checker to meet characteristics of good writing

		The students' response rate (n=39)							
No	**The online grammar checker helps me to**	**Strongly Disagree**		**Disagree**		**Agree**		**Strongly Agree**	
		f	**%**	***f***	**%**	***f***	**%**	***f***	**%**
1	Have correct spellings	0	0	0	0	21	55	17	45
2	Minimize grammatical errors	1	3	1	3	17	45	19	50
3	Write well-crafted sentences	0	0	3	8	25	66	10	26
4	Have correct punctuations	1	3	5	13	21	55	11	29
5	Have accurate words choices	1	3	6	16	23	61	8	21
6	Make my writing easy to understand	0	0	7	18	17	45	14	37
7	Organize my writing ideas	2	5	12	32	16	42	8	21

Note. Cronbach alpha of the survey results = .896

As displayed in Table 4, an online grammar checker could likely help students meet the characteristics of good writing. More specifically, over 90% of the students who selected the technology agreed and strongly agreed that online grammar checker helped them to have correct spellings (100%), minimize

grammatical errors in their writing (95%), and write well-crafted sentences (92%). This finding might concur with argumentations that technology could positively affect students' English language writing (see Tri & Nguyen, 2014).

Discussion

The first and second research questions aimed to explore how often the students used technology to enhance their writing and the usefulness of using the technology (in which there was no association between the variables of gender and the usefulness of using the technology). Online dictionary became the most useful technology that the students used frequently. This result was in agreement with the previous studies by Jin and Deifell (2013); Tri and Nguyen, (2014), who also reported that online dictionaries were used frequently for English language learning purposes. This finding might indicate that an online dictionary is still applicable to support EFL writing activities of university students, such as those in Indonesia, although the dictionary might be considered a simple technology tool. The research also informed that the students frequently used GT (68%), which might help translate sentences (Chandra & Yuyun, 2018; Jin & Deifell, 2013). As the data showed, the Google search engine was another useful technology (75%) that the students frequently used to improve their writing. In that case, the students perhaps valued the search engine's capacity to locate rich information from various websites (see Herington, 2002; Tekinarslan, 2008).

Meanwhile, as evidenced in the data, YouTube videos were rarely used and considered less useful technology to enhance the students' writing. This finding was inconsistent with that in the previous studies informing that YouTube videos could supplement what has been discussed in a class (see Henderson et al., 2017; Watkins & Wilkins, 2011). Like the research participants in Tri and Nguyen's (2014) research, the students in this study might use YouTube videos more for non-language learning purposes. The students possibly favored types of technology tools that could provide them with quicker language assistance for their writing, such as an online dictionary, which could instantly provide meanings of words and a searchable thesaurus (see Dudeney & Hockly, 2012).

Research question number four aimed to explore a technology tool that the students liked the most and their perceptions towards the technology to help them meet the characteristics of good writing. The findings showed that an online grammar checker was the technology tool that the students liked the most (57%). As evidenced in the data, the students believed that the grammar checker could help them check spellings, write well-crafted sentences, and minimize grammatical problems. These findings should clarify how "technology helps improve writing skills" (Tri & Nguyen, 2014, p. 41. Besides, the online grammar checker could help students in detecting some grammatical errors in their writing, such as subject-verb agreement, word form, word and verb choices, word order, and punctuations. These results were in accord with previous studies (e.g., Park, 2019; Yang, 2018).

Conclusion and Recommendations

The study comes to three main conclusions. First, online dictionary, GT, and Google search engine are the most useful technology that the students use frequently. Second, there is no association between the variables of gender and the

usefulness of using the technology. Third, the students do not use online grammar checker very often (e.g., compared to the online dictionary, GT, and Google search engine). However, it is the one that the students find useful to help them meet the characteristics of good writing.

Based on the research conclusions, the researcher would like to provide some recommendations, specifically for EFL writing lecturers. First, they need to let their students know about some drawbacks of the technology, so they do not depend entirely on the technology to improve their writing. For instance, GT fails to translate sentences with accurate word choices, sentence structures (Groves & Mundt, 2015), and grammar (Chandra & Yuyun, 2018). Moreover, in translating full sentences, GT is not sensitive to their contexts (Sheppard, 2011). The students should keep these drawbacks in mind and wisely use the GT for their writing activities. Otherwise, problems with word choices, sentence structures, grammar might appear in their writing. Besides, an online grammar checker, a tool that the students like the most, might provide less accurate feedback, have limited grammar error detections (Yang, 2018), and give flawed error corrections (Park, 2019). Therefore, the lecturers can emphasize that the grammar checker, for instance, is not like a magical stick that can perfectly and instantly make their students' written work free from grammatical errors. From that point, the students need to be encouraged to always put their serious efforts into checking grammatical aspects of their writing carefully before submitting their work.

The research further informs that the students frequently use the Google search engine. In that case, the lecturers should guide their students to find reliable information from a website suggested by the search engine. For example, using the CRAAP test, the students can use the following questions to evaluate information presented on a website:

- Currency: Is the information current or out-of-date for my topic?
- Relevance: Does the information relate to my topic?
- Authority: What are the author's qualifications to write on the topic?
- Accuracy: Does evidence support the information?
- Purpose: Is the information fact or opinion? (adapted from Kurpiel, 2020, n. p.)

If the students have positive answers to these questions, they might include the information on the website to support their writing. Further, with the Google search engine, the lecturers need to be aware that Internet plagiarism issues (Eret & Ok, 2014; Scanlon, 2003) might happen during their students' writing process. To minimize that occurrence, the lecturers could raise students' awareness that plagiarism is a serious academic offense and then strictly set a class rule that they will get no point once they commit plagiarism in their writing work. In that case, an online plagiarism checker might help the lecturers to screen all their students' work.

The limitations of the present study need to be acknowledged. The small sample size (n = 67) of this research affects the generalizability of the findings to other contexts. Besides, the students are not asked to list particular technology tools (other than those stated in the questionnaire) that they have used to enhance their writing. The researcher, thus, cannot tell if other types of technology also contribute to the students' writing improvement. Moreover, the study results are

obtained before the COVID-19 pandemic and are constrained to presenting descriptive statistical numbers. What the students do exactly with the technology, specifically during or after the pandemic, remains unknown.

To address these limitations, further researchers can follow up on the present study by interviewing students in similar settings to detail what they exactly do with technology (e.g., the ones they like the most, use frequently, and perceive useful in enhancing their writing). Other research data collection procedures (e.g., recording EFL writing classroom sessions and using a more open-ended type of questionnaire) might enable future researchers to obtain richer data to detail what the students do with the technology. Finally, some of these questions might be interesting to explore in future studies:

- "How can we fully exploit the potential of computer and networking technologies to construct a writing environment in light of the learning theories of writing or L2 writing?" (Kuo, 2008, p. 286)
- (Rather than be used in an EFL writing class) Will YouTube videos be more useful for teaching a research methodology class through distance technology (Hunter, Ortloff, & Wagner, 2014) or looking for research data (Chen & Summers, 2015)? How?
- What technology tools do EFL university students use to improve their writing, specifically during or after the COVID-19 pandemic? Are the tools similar to those discussed in this paper?
- What are some specific writing aspects that can be improved using an online dictionary?
- What is a (free) online grammar checker that EFL university students like the most and can best detect grammatical errors in their writing?
- How can EFL writing teachers prevent plagiarism acts in their writing classroom?

In closing, it is worth remembering that all the technology tools discussed in this study might be "transformational as we make it. It's not the tool that counts; it's what we do with it" (Muhtaris & Ziemke, 2015, p. 13).

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Appendix

The Close-Ended Questionnaire

Section 1: Gender

What is your gender? Male Female Prefer not to answer

Section 2: Frequency

No	Technology I use to enhance my writing	1 Never	2 Rarely	3 Frequently	4 Very Frequently
1	Online grammar checker				
2	*YouTube* videos				
3	*Google docs*				
4	Online dictionary				
5	*Google* (search engine)				
6	Online website				
7	*Google translate*				

Section 3: Perceptions

No	The usefulness of the technology to enhance my writing	1 Not at all Useful	2 Slightly Useful	3 Very Useful	4 Extremely Useful
8	Online grammar checker				
9	*YouTube* videos				
10	*Google docs*				
11	Online dictionary				
12	*Google* (search engine)				
13	Online website				
14	*Google translate*				

Section 4: Technology that students like the most

15	**Select ONLY ONE technology that you like the most to enhance your writing**
	Online grammar checker
	YouTube videos
	Google docs
	Online dictionary
	Google (search engine)
	Online website
	Google translate

Section 5: Meeting characteristics of good writing

No	The technology that I like the most helps me to	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
16	Have correct spellings				
17	Have correct punctuations				
18	Minimize grammatical errors				
19	Have accurate word choices				
20	Write well-crafted sentences				
21	Organize my writing ideas				
22	Make my writing easy to understand				