

EFL University Students' Use of Online Resources to Facilitate Self-Regulated Writing

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Abstract

This qualitative study was conducted to descriptively identify the kinds of online resources EFL students use and how the online resources are used in the phases of self-regulated writing. Four English students of a private university in Malang, Indonesia, were recruited for three reasons: they are high-level self-regulated students; they have passed an academic writing course with excellent scores; they have published at least one article in a national-scale journal. Using a semi-structured interview, the students were asked about online resources they use and how they use the online resources in three phases of self-regulated writing. The interview data were analyzed using content analysis. Investigator triangulation was performed by involving two data analysts. The analysis reveals that students use eight types of online resources: communication tools, repositories, social networks, assessment tools, Internet, management tools, social markers and RSS, and other technology. In addition, the students use online resources throughout the three phases of online self-regulated writing. However, due to insufficient technological knowledge, the use of online resources is limited to simple tasks (e.g. gaining ideas, understanding writing theories, transforming the language, obtaining feedback, and verifying plagiarism). Accordingly, teachers need to direct their students to make use of the available online resources properly and effectively.

Keywords: EFL students, online resources, self-regulation, self-regulated writing, writing skills

Introduction

Students today are demanded to be autonomous; thus, they need to equip themselves with the ability to self-regulate their learning to achieve the learning outcome successfully (Çelik et al., 2012). To date, a large body of studies has highlighted the importance of self-regulation in language learning, specifically in learning vocabulary (Sadeghi & Khezrlou, 2012), listening (Yabukoshi, 2018), speaking (Hromalik & Koszalka, 2018), reading (Kavani & Amjadiparvar, 2018), and writing (Farsani et al., 2014; Roderick, 2019). Psychologically, self-regulation might promote motivation (Kormos & Csizér, 2014) and self-efficacy (Bai & Guo, 2018) which in turn can predict

learning performance (Teng & Huang, 2019). To this point, self-regulation is undoubtedly essential for language learning since it involves various aspects –such as metacognitive, cognitive, affective, motivational, and behavioural – to achieve learning goals (Kizilcec et al., 2017). These aspects are required in the three phases of self-regulation: forethought, performance, and self-reflection (Zimmerman, 2000).

At the same time, a dramatic technological transformation has made the learning process much easier leading to the increased access of information and communication technology (ICT) in language learning. ICT is inevitably a key factor that is linked to the students' performance (Valentín et al., 2013). This is because ICT offers not only comprehensible input but also language production activities for speaking skills (Hromalik & Koszalka, 2018). Besides, ICT is used to practice listening, vocabulary, and writing (Çelik et al., 2012). It is also useful to monitor students' course performance and to enhance motivation (Çelik et al., 2012; Lai et al., 2014). Therefore, it is not surprising that high-performing students frequently access ICT (Hromalik & Koszalka, 2018). Currently, Internet expansion offers millions of online resources for language learning. In writing, the use of online resources improves students' lexical aspect (Pyo, 2020), critical thinking skills (Zhang, 2018), content and language function (Sloan et al., 2014), self-confidence, and text structure (Taffs & Holt, 2013), and collaborative learning (Ferriman, 2013).

Accounting for the promising benefits of self-regulation and ICT, current studies concern the use of ICT to mediate students' self-regulation. ICT is the tool to facilitate self-regulation (Kitsantas, 2013) and to improve learning (Banyard et al., 2006). ICT is primarily used out of class (Lai et al., 2014); thus, it provides ample opportunities to extend language learning beyond the classroom (Lai & Gu, 2011). Unexpectedly, Yot-Domínguez and Marcelo (2017) reveal that university students do not frequently use technology to self-regulate their writing process although they are active users of digital technology. Further, the students dominantly use social support using Internet information search and instant communication. Another report unveils that only high-performing students open the technological resources provided for them. They use strategies such as monitoring performance, time management, and methods of learning in speaking skills (Hromalik & Koszalka, 2018).

The previous findings indicate students' inconsistency in using ICT to self-regulate their learning. Besides, none of them specifically addressed the use of online resources to facilitate self-regulated writing, whereas online resources can improve writing skills. Moreover, students today are active users of Internet services (Prensky, 2001). It is supposed that the use of online resources for self-regulation could help students write better. However, very little is known about the kinds of online resources that English as a foreign language (EFL) students use to facilitate self-regulated writing and how the online resources are used in the three phases of self-regulated writing. Also, the vast majority of self-regulation studies were reported statistically; thus, it is suggested to explore this issue qualitatively (Yot-Domínguez & Marcelo, 2017). To this end, this study will be conducted to descriptively answer the research questions posed in the following:

1. What online resources do EFL university students use to facilitate their self-regulated writing?
2. How do EFL university students use online resources to facilitate the three phases of self-regulated writing?

Literature Review

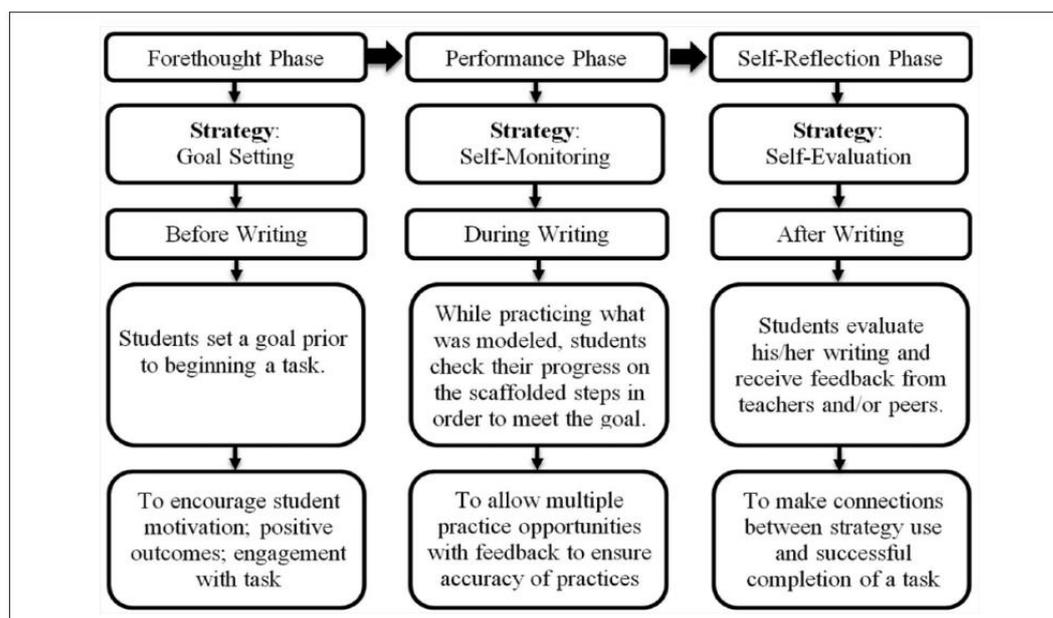
Writing is inevitably a complex skill; thus, it is no wonder that many students fail to be capable writers (Harris & Graham, 2016) especially in EFL context. Moreover, this language skill requires multifaceted processes which give extra challenges (Karim et al., 2017). Writing is a cyclical process involving three phases: planning, execution, and evaluation (Flower & Hayes, 1981; Oshima & Hogue, 2007). In the first phase, students plan what to write by generating and organizing their ideas. They have to possess extended knowledge to gain ideas and organize them (Flower & Hayes, 1981). The next phase is execution which is performed by developing the ideas into a rough draft. The students must be able to manage all demands for standard written English including rhetorical, lexical, and syntactic knowledge (Flower & Hayes, 1981). Finally, they evaluate their draft by revising the content and editing the writing conventions in the evaluation stage (Oshima & Hogue, 2007). This stage can be frustrating if the students do not sustain their efforts (Zimmerman & Bandura, 1994) to improve their writing quality and knowledge of English writing conventions. These writing processes do not stop here because students need to revise their draft repeatedly until they achieve the standard of quality (Zimmerman & Bandura, 1994) based on the feedback from the teachers. Therefore, it is not surprising that EFL students face difficulties in all writing processes – planning, execution, and evaluation (Karim et al., 2017).

To confront the complexities of writing, students need to self-regulate their learning process. Extensive studies have provided evidence that self-regulation plays a pivotal role in writing (Roderick, 2019; Rosário et al., 2019; Teng & Huang, 2019; Zimmerman & Bandura, 1994). Self-regulation is significant because writing demands the students to have a personal schedule, to work individually, and to have a sustainable creative effort (Zimmerman & Bandura, 1994). Moreover, writing processes require students' time investment since it is a cyclical process (Rosário et al., 2019). Thus, enormous self-regulation is demanded to improve knowledge of writing and strategies (Harris & Graham, 2016). Unfortunately, EFL university students use self-regulation infrequently in writing (Sun & Wang, 2020) and only skilled writers show high levels of self-regulation (Hughes et al., 2019; Reparaz et al., 2020).

Self-regulation involves three phases: forethought, performance, and self-reflection phases, which fit the nature of the cyclical processes of writing. Deriving theories from some scholars, Hughes et al. (2019) propose a three-phase model of self-regulated writing: forethought, performance, and self-reflection. The forethought phase is done before writing to set a goal of writing, the performance phase is conducted during writing to self-monitor the scaffolded writing progress, and the self-reflection phase is performed after writing to self-evaluate the writing progress based on the feedback from teachers or peers. A detailed explanation of each phase is presented in Figure 1. This model is adopted as a theoretical framework in this study.

Figure 1

Three-phase Model of Self-regulated Writing (Hughes et al., 2019)



In addition to self-regulation, the existence of ICT has given students ease in practising writing (Çelik et al., 2012). The advance of ICT undoubtedly provides students with myriads of online resources easily accessed by digital natives of the Internet (Prensky, 2001). Some studies prove the promising benefits of online resources for writing. In the planning stage, online resources are helpful to structure content, understand the language function, and obtain feedback (Sloan et al., 2014). Also, online resources help students structure the literature review part and enhance their confidence (Taffs & Holt, 2013). Additionally, YouTube tutorial videos could promote the accuracy and organization of ideas (Alobaid, 2020). In the execution stage, a dictionary application accelerated the students' lexical aspect (Pyo, 2020). In the evaluation stage, online corpora enable students to revise their language to be more natural (Gilmore, 2009). Meanwhile, online bulletin boards provide students with collaborative learning platforms (Ferriman, 2013).

The classification of online resources for self-regulated writing was adapted from the Self-regulated Learning (SRL) Strategies and Technologies developed by Yot-Domínguez and Marcelo (2017) based on the models of Zimmerman (1989, 1990) and Pintrich (1999a, 1999b). This model consists of ten categories: communication tools, repositories, social networks, production and storage, social markers and Really Simple Syndication (RSS), multimedia resources, assessment tools, Internet, management tools, and other technology. In this study, the technology is limited to only online resources.

Considering the critical role of self-regulation and ICT in writing, combining both is supposed to accelerate self-regulated writing. Thus, though still limited, recently reported studies have tried to explore the use of ICT to facilitate self-regulation. For example, Augmented Reality-based context-aware ubiquitous writing (ARCAUW) is proven to significantly enhance self-regulation in genre-based writing (Lin et al., 2020). Also, an online writing centre provides students with unlimited access to get academic support and to self-direct their learning (Harwood & Koyama, 2020). Unexpectedly,

university students infrequently use technology to self-regulate their learning process of writing although they are frequent users of digital technology. They use Internet information search and instant communication as social support for accomplishing simple tasks (e.g. searching, storing, and sharing information) (Yot-Domínguez & Marcelo, 2017). Meanwhile, only high-performing students open the technological resources provided for them to improve self-regulation in speaking by performing strategies such as monitoring performance, use of time, and methods of learning (Hromalik & Koszalka, 2018).

Adopting the three-phase model of self-regulated writing (Hughes et al., 2019) and SRL Strategies and Technologies (Yot-Domínguez & Marcelo, 2017), this study was conducted to shed light on the use of online resources to facilitate self-regulated writing. Specifically, it identified the kinds of online resources EFL university students use to facilitate self-regulated writing. Additionally, it explored how online resources are used in the three phases of self-regulated writing.

Method

A descriptive qualitative research design was used to portray the students' use of online resources to facilitate self-regulated writing. English students of a private university in Malang, Indonesia, were involved by applying three criteria. First, they are self-regulated learners with a high level of regulation ($M = 4.32, 4.15, 3.70, \text{ and } 3.75$ of 5 levels) based on an earlier study (Umamah & Cahyono, 2020). Second, they have passed an academic writing course with an excellent score (Grade A) based on their academic report card. Finally, they have published at least one article in a national-scale journal. Having passed a screening process, four students were eligible to be recruited as the participants. All of them are female students of 20 and 24 years old. Later, they are identified as Participant 1 (P1), Participant 2 (P2), Participant 3 (P3), and Participant 4 (P4) to keep their identity anonymous.

A list of self-construct interview questions consisting of eleven items written in the participants' first language (Indonesian) was prepared as the research instrument. The first part consisted of three questions asking about the participants' background information (e.g., interest in writing and Internet use). In the second part, five questions were put forward to dig information about the types of online resources used by the participants to facilitate self-regulated writing. The first and second parts of the list of the self-construct interview were used to answer the first research question. Three other questions were inserted to answer the second research question, which explored how online resources are used in the three phases of self-regulated writing. The interview questions were checked and validated by an expert in English language teaching.

Prior to the data collection processes, a letter of consent was delivered to the participants. The participants were then given some stipulations stating their agreement to participate in this study, willingness to join some interview sessions, and willingness to complete personal data anonymity. The interview sessions were held online. To obtain data saturation, the interview was conducted in seven sessions each of which lasted 30-60 minutes. The first interview session was conducted via Zoom Meeting to ask for information dealing with the two research questions. The next interview sessions

conducted via WhatsApp Voice Notes were done to complete, clarify, and validate the data.

To triangulate the data, investigator triangulation was performed by involving two data analysts (the first author and a colleague). Content analysis was applied to analyze the data following the steps proposed by Renz et al. (2018). The steps in performing content analysis include: (a) transcribing the results of interviews to prepare the data, (b) reading the transcripts, (c) taking notes on the transcripts which list various kinds of information, (d) defining the process of the unit of analysis using themes which represent expressions of relevant ideas or an issue, (e) coding schema development to organize data comprehensively, (f) coding all texts, (g) concluding the coded data, and (h) describing and interpreting of the findings.

Results and Discussion

Results

This study was carried out to find out the online resources EFL university students use to facilitate their self-regulated writing and how they use online resources to facilitate the three phases of self-regulated writing.

Types of Online Resources Used for Self-regulated Writing

Before being asked about their use of online resources, the participants were given some questions related to their interest in English writing and Internet use. Both participants stated that they like writing in English. They realized that writing skill is essential for English students because they are demanded to write a thesis as a partial requirement to complete their study. Despite their interest in English writing, they did not practice writing frequently. They were active users of the Internet and used it every time for studying online especially during the Covid-19 Pandemic. They use the Internet for searching for materials and being engaged on social media. They mentioned that online resources helped them in writing academic texts (e.g., ideas generation, writing quality improvement, and self-confidence improvement).

Dealing with the types of online resources, the participants used eight categories of online resources: communication tools, repositories, social networks, assessment tools, Internet, management tools, social markers, Really Simple Syndication (RSS), and other technology. Detailed classification is presented in Table 1.

Table 1

Types of Online Resources Used in the Self-regulated Writing

No.	Types of Online Resources	Identified Online Resources
1	Communication tools	WhatsApp and e-mail
2	Repositories	YouTube and Instagram
3	Social networks	Facebook, Telegram, and TikTok
4	Assessment tools	Online grammar checker
5	Internet	Online journals, websites/blogs, online dictionaries, translators, and thesaurus
6	Management tools	Reference manager and plagiarism checker

7	Social markers & RSS	Sage
8	Other technology	E-book and online survey

As shown in Table 2, the four participants used WhatsApp and e-mail as means of communication. In terms of repositories, they accessed YouTube and had an Instagram account. Facebook, Telegram, and TikTok were the platforms for social networking. P1 had a Facebook account, P2 involved herself in Telegram, and P3 used TikTok. Assessment tools were important for academic writing. Three participants used an online grammar checker (e.g. Grammarly), while P2 checked the grammar manually. Internet sources such as online journals, websites/blogs, dictionaries, and translators were major sources frequently accessed by all of the four participants. Regarding reference manager, three participants used reference manager (e.g. Mendeley and Zotero) to manage bibliography, while P2 performed this academic writing activity manually. Meanwhile, all participants used an online plagiarism checker to verify the similarity index. Meanwhile, one participant (P3) accessed social markers and RSS i.e. Sage. Finally, other technology such as an online survey was beneficial for P3, while P2 was helped by e-book. P2 stated,

I use online national and international journals, Google, online dictionary, e-book, Research Gate, Springer, Elsevier, plagiarism checker, and YouTube. I use social media like WhatsApp, e-mail, Instagram, and Telegram.

Further, it was found that the participants accessed those online resources in the three phases of self-regulated writing: forethought, performance, and self-reflection. Detailed classification is available in Table 2.

Table 2

Types of Online Resources Used in the Self-regulated Writing

No.	Phases of Self-regulation	Types of Resources	Online Resources
1	Forethought phase	Internet Repositories Social Networks Social Markers & RSS Communication tools	Online journals, websites/blogs, online dictionaries, translators, and thesaurus YouTube TikTok Sage WhatsApp
2	Performance phase	Internet Management tools Communication tools Repositories	Online journals, websites/blogs, online dictionaries, translators, and thesaurus Reference manager and plagiarism checker WhatsApp and e-mail YouTube and Instagram

		Other technology	E-book and online survey
3	Self-reflection phase	Management tools	Online plagiarism checker
		Communication tools	WhatsApp and e-mail
		Internet	Online dictionaries and thesaurus
		Assessment tools	Online grammar checker

Table 2 displays that in the forethought phase, there are five types of online resources (e.g. Internet, repositories, social networks, social markers and RSS, and communication tools) that the participants primarily used. They generally accessed the Internet such as online journals, websites/blogs, online dictionaries, and translators to organize and transform ideas. Besides, they used repositories such as YouTube to gain ideas. Meanwhile, P3 used TikTok as a social network and accessed RSS (e.g. Sage). All of the four participants used WhatsApp as a communication tool. This is apparent in P1's words,

I usually access Google (to search) online journals, websites, WhatsApp, and YouTube in the forethought phase.

In the performance phase, they used five types of online resources: the Internet, management tools, communication tools, repositories, and other technology. They accessed the Internet to find online journals and to use an online dictionary. P1, P3, and P4 mentioned that they also used an online translator and browsed websites about the theory of writing, while P2 also used a thesaurus. Related to management tools, P1, P3, and P4 used online reference manager (e.g. Mendeley and Zotero), while P2 still used the manual way. All of the participants used communication tools such as WhatsApp to communicate with peers and teachers. Regarding the use of repositories, P3 accessed YouTube, while P4 used YouTube and Instagram. The last type is another technology that is used by P2 and P4. P2 read an e-book relevant to the topic, while P4 used an online survey (e.g. Google Form). P3 stated,

For the drafting phase, I use an online dictionary, Grammarly, online journals also...what else? Zotero, e-mail to send the task, and WhatsApp for sharing with friends... YouTube to learn how to use Zotero and Excel for the research.

In the self-reflection phase, four types of online resources were identified, namely: management tools, communication tools, Internet, and assessment tools. The four participants used the online plagiarism checker as a management tool. They also used WhatsApp and e-mail to get feedback from peers, seniors, and teachers. Three participants also accessed the Internet to open an online dictionary, while P2 opened thesaurus. Additionally, three participants made use of an online grammar checker (e.g. Grammarly) as the assessment tool. P4 mentioned,

In the reflection phase after writing the draft, clearly I used Zotero for checking the similarity percentage of my article with other articles. I still used online journals...and also used Google translate, and I still used Grammarly to add important statements or to reduce unnecessary statements.

Overall, the participants used various types of online resources throughout the three phases of self-regulation. Interestingly, the Internet and communication tools were used in all phases of self-regulated writing. Management tools were used in the performance and self-reflection phases. Meanwhile, repositories were useful in the forethought and performance phases; social networks and social markers & RSS were helpful in the forethought phase; assessment tools were accessed in the self-reflection phase; another technology was only used in the performance phase.

The Use Online Resources in the Three Phases of Self-regulated Writing

To answer the second research question, a total of three questions were asked. The questions asked how the participants used the online resources in the forethought, performance, and self-reflection phases.

In the first phase, the participants used the Internet, repositories, social networks, social markers and RSS, and communication tools. The four participants accessed the Internet such as Google Search and certain websites (e.g. online writing centre) to gain ideas and to learn writing theory. They also opened repositories such as YouTube, which is beneficial to explore specific materials or ideas. One student (P3) used a social network (e.g. TikTok) to get information about reputable journals and article writing theories. Besides, they accessed social markers and RSS (e.g. Sage) to find good journals to read. Finally, all of them used WhatsApp to discuss their ideas with peers and the teacher more easily. P1 stated,

I open Google, Wikipedia, blogs to find ideas or current issues. The web is used to understand the steps of writing. Sometimes accessing YouTube to explore certain information and WhatsApp is used to discuss my ideas with my friends.

In the performance phase, the participants used the Internet, management tools, communication tools, repositories, and other technology. The online resources they got from the Internet are online journals, websites, online dictionaries, and thesaurus. Online journals were used to find references to develop their content and made some quotations from the articles. They also opened certain websites to find information related to their topic. An online dictionary is essential in the process of transforming the language since they are EFL students. Not only an online dictionary, but P2 also used an online thesaurus to select appropriate words. Since their task was academic writing, management tools were necessary for them. To manage a bibliography, three participants made use of an online reference manager application (e.g. Mendeley and Zotero). Meanwhile, P2 did this step manually since she could not use this kind of application. Having all the ideas needed, they wrote the draft several times and consulted it with their peers, seniors, and teachers using WhatsApp and e-mail. Dealing with the repositories, YouTube and Instagram were used to explore ideas during the writing process. Other technology such as an online

survey was used by P3 to obtain research data for her article, while P2 read an e-book to obtain relevant materials to develop her content. P2 explained,

In this phase, I review national and international journals [articles] as references and to support the content of my article. I also read e-books. Online dictionaries and thesaurus are to find appropriate words. I cannot use Mendeley, so I make a reference list manually.

In the reflection phase, they made use of management tools, communication tools, the Internet, and assessment tools to evaluate their draft. They accessed management tools (e.g. plagiarism checker) to make sure their text was original, to check the similarity index, and to avoid plagiarism. They consulted their draft with peers, seniors, and teachers using communication tools like WhatsApp and e-mail. During the revision, they accessed the Internet to find online journals and certain websites to revise the content. The online dictionary was still used in this phase to revise inappropriate words. P2 also used an online thesaurus to use words properly. In terms of assessment tools, P1, P3, and P4 used an online grammar checker to revise their grammar errors, while P2 checked the grammar manually or by asking her peers for help via WhatsApp or e-mail. The quotes from the two participants support the statements.

I still used it...Grammarly to check the grammar and vocabulary...online dictionary...using the web to check plagiarism...to avoid plagiarism. Using e-mail to submit the final task...using WhatsApp for sharing with friends and using WhatsApp to ask the teacher when finding unsolved problems. (P3)

Firstly, I still used Grammarly to check grammar and like punctuation errors. I used an online dictionary to revise inappropriate words or to add and reduce [ideas] like that. Second, I use a plagiarism checker to know that to change and see how much my journal [article] is similar to others' articles. I also use e-journals because when I tried to revise, I had to find new ideas to add or reduce my ideas. (P4)

In general, the participants have made use of various online resources to facilitate self-regulated writing. The use of online resources is in all phases of self-regulated writing: forethought, performance, and self-reflection phases. The promising benefits of online resources are to gain ideas, to understand writing theories, to transform the language, to develop content, to get feedback, and to check plagiarism.

Discussion

This research was to explore the types of online resources used by university students to facilitate their self-regulated writing and how the online resources are used in the three phases of self-regulated writing. Based on the aforementioned analysis, the types of online resources to facilitate self-regulated writing can be classified into eight categories: communication tools, repositories, social networks, assessment tools, Internet, management tools, social markers, and Really Simple Syndication (RSS), and other

technology. This finding confirms the notion that ICT including online resources is the tool to facilitate students' self-regulation (Kitsantas, 2013). The students use online resources in the three phases of self-regulated writing: forethought, performance, and reflection. In the forethought phase, students access the Internet, repositories, social networks, social markers and RSS, and communication tools. In the performance phase, they make use of the Internet, management tools, communication tools, repositories, and other technology. In the reflection phase, students use management tools, communication tools, the Internet, and assessment tools. This finding implies that university students have recognized the necessity of engaging online resources to support the whole process of self-regulated writing particularly in writing academic texts. It is in contrast to the finding of Yot-Domínguez and Marcelo (2017) reporting that university students tend to use technology for non-academic activities rather than for self-regulating their learning purposes. This contrastive finding might be because the participants of this study are those who have a high level of self-regulation. Self-regulated learners are characterized as those who optimize their learning environments including the available online resources by selecting, structuring and creating environments (Zimmerman, 1986). Moreover, this study was conducted during the Covid-19 Pandemic, which forced the students to learn online. Interestingly, among the eight online resources found in this study, Internet and communication tools are used in all three phases of self-regulated writing. It indicates the critical benefits of the two online resources; thus, they are continually accessed throughout the processes of self-regulation (Yot-Domínguez & Marcelo, 2017).

Dealing with how the students use online resources in the three phases of self-regulated writing, there are some issues worth discussing further. In the forethought phase, students access the Internet, repositories, social networks, social markers, Really Simple Syndication (RSS), and communication tools. All of those online resources are mainly accessed to look for ideas to write and learn the writing materials. The Internet undoubtedly offers uncountable learning resources to help students perform any kind of learning task including writing by optimizing autonomous learning (Svyrydjuk et al., 2021). Additionally, YouTube is a flexible, interesting, and interactive platform to facilitate learning (Wang & Chen, 2019), and the students find it as a useful repository to gain ideas and to understand the writing theories. An interesting finding is revealed regarding the use of social networks. One student uses TikTok App as a source to find information about reputable online journals and article writing tips. Meanwhile, other social networks (e.g. Facebook and Telegram) are not used for academic tasks, whereas the social networks can also be used to exchange information and comments (Badri et al., 2017) related to their writing tasks. A kind of social marker and RSS (e.g. Sage) is used although a previous study reported that it is less accessed compared to other types of technology (Yot-Domínguez & Marcelo, 2017). In this study, Sage is continuously accessed since the students were required to write an academic article; thus, RSS is helpful to read relevant articles from reputable journals to get ideas and examples of good articles. The only communication tool used in this phase is WhatsApp, which is prominent to share ideas informally, but more intensively, with peers than with the teachers. Their communication with the teachers is mainly to consult their topic. The use of WhatsApp moves the learning direction from teacher to peers (Alshammari et al., 2017).

In the performance phase, the students access the Internet, repositories, management tools, communication tools, and other technology. The Internet and repositories are necessary to explore their ideas and to transform the language. The

students, for example, browse Google Search to find online journals, online dictionaries, thesaurus, translators, and certain websites about article writing theories. They also access a repository such as YouTube to explore their ideas, and it is similar to the report of Wang and Chen (2019). YouTube can also be used to enhance writing accuracy and organization of ideas (Alobaid, 2020). The students have an Instagram account, but unfortunately, it is not used for academic purposes. The management tools they used are online reference manager and plagiarism checker. The reference manager (e.g. Mendeley and Zotero) is used to make citations and manage references. This tool is important since they were assigned to write an academic article. A reference manager is necessary to find, store, organize references, and write academic texts (Kali, 2016). However, one student does not know how to use it. It indicates the necessity to train the students to use online resources well. Meanwhile, the online plagiarism checker is to verify the similarity index of their academic text as one of the requirements of article writing. They checked it for each part of the article since they use free software. The use of an online plagiarism checker is required in article writing to avoid plagiarism and to make sure that they have written proper acknowledgement and paraphrase (Stappenbelt & Rowles, 2009). The communication tools are used to discuss the content of their writing with peers, seniors, and teachers. The communication tools they use are WhatsApp and e-mail. WhatsApp is frequently used to discuss with peers and seniors. The discussion via WhatsApp encourages autonomous learning, reduces anxiety, improves their language skills (Kartal, 2019) as well as promotes the students' motivation (Alamer & Al Khateeb, 2021). Meanwhile, e-mail is one of the recommended tools to have online interaction (Basilaia et al., 2020) especially to obtain feedback from the teachers. The next type of online resource is another technology. One of the students uses an online survey (Google Form) to collect her research data, while the other one reads an e-book to develop her content. Reading e-books allows students to be multitasking (Baron, 2017) since the student can read and then directly type or copy the relevant ideas to be paraphrased in the article.

In the reflection phase, students use management tools, communication tools, the Internet, and assessment tools. The management tool they use in this stage is an online plagiarism checker to avoid plagiarism and to make sure that they have written proper acknowledgement and paraphrase (Stappenbelt & Rowles, 2009) before submitting the text to the teacher. The communication tools used in this stage are WhatsApp and e-mail to gain feedback from their peers, seniors, and teachers regarding the content of their writing. Written feedback via WhatsApp is acceptable to revise produced errors (Soria et al., 2020), and this App is generally used to communicate with peers and seniors. Meanwhile, e-mail is one of the recommended tools to have online interaction (Basilaia et al., 2020) in particular to submit their writing task and to get feedback from the teacher that is frequently given through indirect corrective feedback (Wei & Cao, 2020). The Internet is still used in this last phase to revise the content after getting feedback from peers, seniors, and teachers. The use of an online dictionary, for example, helps them in terms of the lexical aspect (Pyo, 2020). They also browse certain websites such as the online writing centre, which provides them with unlimited access to get academic support and to experience self-directed learning (Harwood & Koyama, 2020). The last online resource used in this phase is assessment tools that are necessary to self-evaluate their article writing. The students use an online grammar checker (e.g. Grammarly) to make sure that their sentence structure, vocabulary, and mechanics are used correctly and

properly. As stated by Ghufron and Rosyida (2018) this grammar software helps reduce errors in using grammar, vocabulary, and writing mechanics.

Based on the aforementioned findings, the robust influences of online resources are to gain ideas, to understand writing materials, to develop content, to transform the language, to get feedback from teachers, seniors, and peers, and to verify plagiarism. These findings concur with some previous reports revealing that online resources are essential to obtain enhancement in terms of brainstorming (Mashrah, 2017), writing structure (Taffs & Holt, 2013) content and language function (Sloan et al., 2014), lexical aspect (Gilmore, 2009; Pyo, 2020), and collaborative learning (Ferriman, 2013). Moreover, the online resources are used in the three phases of self-regulation; thus, the student's writing skills can be significantly improved. However, the students' use of online resources is still limited since they still cannot optimize the available online resources to advance their writing processes. It is in conjunction with the research report of Yot-Domínguez and Marcelo (2017) unveiling that university students use technology only for accomplishing simple tasks such as searching, storing, and sharing information. This limitation might be due to insufficient technological knowledge (Jones et al., 2010).

Conclusion

Online resources have been proven to facilitate EFL students' self-regulated writing. The students use various types of online resources in all phases of self-regulated writing: forethought, performance, and self-reflection. This implies that online resources have important roles in advancing the processes of writing particularly for digital native students. Unfortunately, these students have not optimized the use of online resources proven by the limited use of online resources. Insufficient technological knowledge might be the reason for this phenomenon. They are not familiar with available online resources and do not know how to use them. To this end, teachers must play their critical role to direct the students to use the available online resources more effectively and to teach them how to use them properly. Today's students must make use of their advantage as digital natives to use online resources to gain optimum benefits of online resources leading them to achieve high levels of self-regulation.

Due to some limitations, this study is not enough to declare that all EFL students experience the same things as the participants in this study. Accordingly, further studies are suggested to involve more participants by considering their differences such as gender, age, socio-economic status, level of proficiency, and level of addiction to the Internet to provide more fruitful insights. It is also demanded to triangulate the data by combining content and statistical analyses. Finally, this study focused only on self-regulated writing; thus, it is necessary that the next studies concern self-regulation in using online resources for other English skills other than writing.

Acknowledgement

Author one would like to thank Lembaga Pengelola Dana Pendidikan/LPDP (Indonesia Endowment Fund for Education), Ministry of Finance, Republic of Indonesia (grant number 2020032120965) for providing financial support for her doctoral study.

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